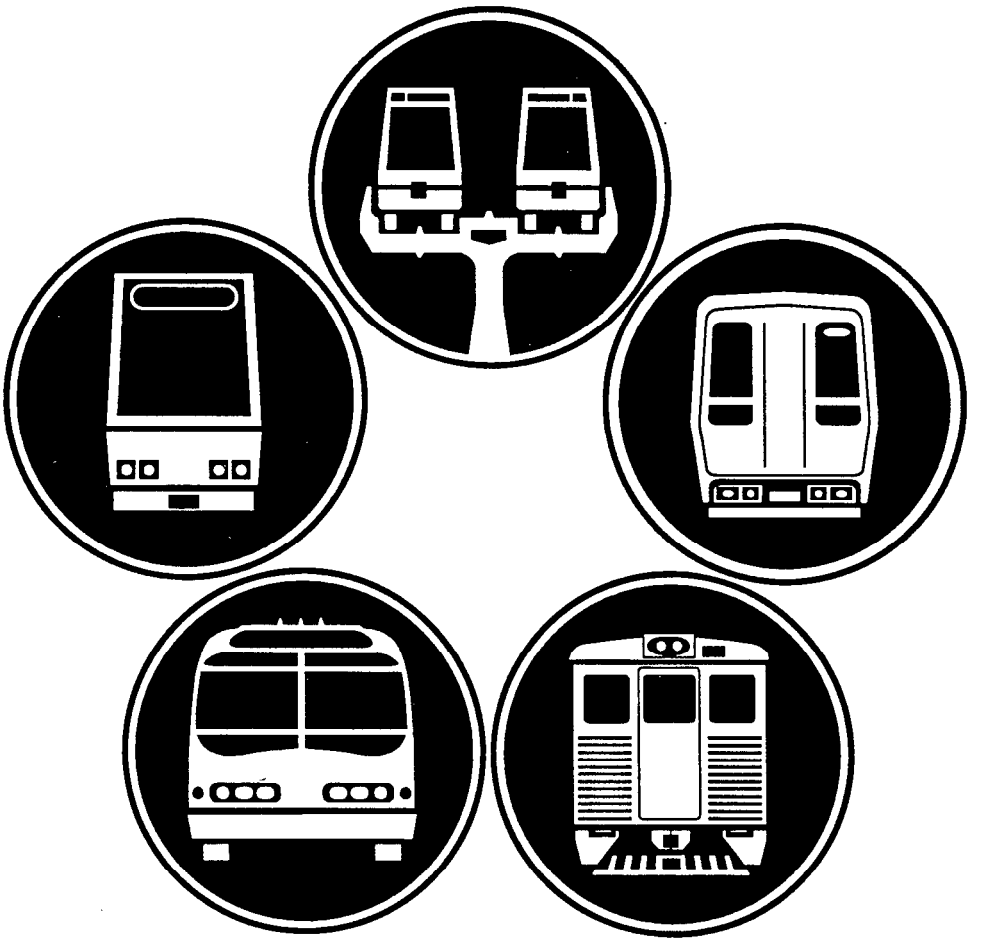
U.S. Department
of Transportation

**Urban Mass
Transportation
Administration**

Substance Abuse In the Transit Industry

November 1991



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Donald Schneck, Richard Amodei, Dr. Robert Kemish

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Booz, Allen & Hamilton, Inc.
Transportation Consulting Division
1700 Market Street
Philadelphia, PA 19103

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16. Abstract

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The results documented in the *"National Household Survey on Drug A&use Population Estimates 2988,"* and the comparable 1990 NIDA survey results provide a general benchmark for comparisons of the transit industry results with those of the general population. Reported drug use form the employee survey is generally slightly lower than reported use in the general population. The reported alcohol use is slightly lower than that reported for the general population. Since these data demonstrate similar trends and incident levels, there appears to be convergent validity between the employee survey results and the NIDA survey results of both 1988 and 1990.

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The Substance Abuse in the Transit Industry Study was undertaken to determine the extent, prevalence and types of substance abuse and substance abuse programs in the transit industry nationwide as well as their identifiable consequences. The Federal Government and the Department of Transportation have been concerned about the prevalence and impacts of substance abuse in the workplace for some time. In recent years, substance use by employees in sensitive safety positions has been a contributing factor in several serious accidents and incidents across all transportation modes. This study represents the first comprehensive attempt to gather information on substance abuse policies, programs and usage patterns in the transit industry and, thereby, provide a snapshot of the current transit industry substance abuse situation.

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Substances Of Abuse -- Responding transit managers clearly perceive alcohol as the major substance of abuse. Self-reported alcohol consumption was described during or just before duty by a small segment of the employees and at high consumption levels that would affect job performance by an additional group of employees. It is also clear from the testing results that cocaine and marijuana are the main drugs abused by employees, followed by opiates, barbiturates and benzodiazepines. This is consistent with the self-reported results of the transit employee survey. The employee survey also documented self-reported prescription drug use that would likely affect job performance.

Employee Awareness -- The majority of employees, 70%, have some knowledge, through either hearsay or direct observation, of alcohol and drug impairment in the workplace. The awareness expressed by this large majority of respondents of their coworkers' experiencing difficulty performing their jobs due to alcohol use demonstrates fairly wide-scale recognition of the problem by most employees.

Alcohol Use -- Employees were asked about their drinking habits with all types of alcoholic beverages, including beer, wine and liquor. The overall conclusion is that the "frequent drinking" problem is significant, but fairly small in proportion (about six percent) to all of the responses. Alcohol abuse to the point that it affects job performance was reported for only a small proportion of the sensitive safety employees. The larger issue may be the less frequent, but still high alcohol consumption by a greater proportion of the employees (almost 15%). This level of alcohol abuse may be recognized by coworkers as a problem in job performance, but not necessarily, directly or personally recognized as such by the employee.

Drug Use -- The main drug use concern is the frequent drug usage reported by a small but measurable segment of employees within a consistent range of six to over seven percent. This proportion of employees represents a minor segment of the total transit industry's sensitive safety employees. However, employees that continue to use drugs still present a potential risk due to diminished capacity.

Safety Implications -- The transit agency survey results indicate that there is a small, but measurable safety problem associated with substance abuse. Almost all systems which reported a substance abuse related accident test for both preemployment

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Alcohol Use

- As noted in the agency survey responses, alcohol was perceived as the most abused substance, yet only 58% of the systems test for alcohol.
- About six percent of the sensitive safety employees reported alcohol use during or just before duty.
- Another 15% of the sensitive safety employees reported less frequent alcohol consumption, but at nearly a similar volume as those employees noted above.
- About two percent of alcohol test results were confirmed positive for sensitive safety employees by responding agencies.

Program Content -- Several conclusions may be reached from the conduct of this research study that relate to the content of a substance abuse management program. These points are relevant to the development or refinement of an agency program and are pertinent to development of any Federal regulations.

- Abuse of alcohol to the extent that it affects job performance should be addressed in substance abuse management programs.
- Use of both prescription and illicit drugs was documented at levels that affect job performance.
- Each testing mechanism plays a separate and important role in the control of substance abuse -- preemployment, postaccident, return-to-duty, random, reasonable cause and periodic.
- Absent a Federal regulation, drug and alcohol thresholds are not consistently defined throughout the industry.
- Availability of a comprehensive Employee Assistance Program (EAP) was a concern to many employees.

Study Recommendations -- This study has documented the extent of substance abuse in the transit industry and highlighted the implications for the potential risk to the public safety. The study results also indicate that there are certain aspects of substance abuse testing that should be included in any testing program.

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Six DOT agencies, including the Urban Mass Transportation Administration (UMTA), issued drug testing regulations in November, 1988. The individual DOT agency regulations included specific testing guidance for federal grant recipients and industry organizations within the regulatory purview of each agency. The UMTA regulation required the following types of drug abuse testing procedures for transit industry sensitive safety employees:

- Preemployment;
- Reasonable Cause;
- Postaccident;
- Return-to-Duty; and,
- Random Testing.

The UMTA regulation required that, as a condition of receipt of Federal funding, transit agencies initiate drug testing programs. The UMTA drug testing regulation was subsequently challenged by several individuals and transit unions. As a result of the January 1990 decision by the Federal Appeals Court for the District of Columbia Circuit, the UMTA testing regulation was suspended because of insufficient statutory authority.

Context -- National Transportation Policy/Safety Interests

According to the 1990 National Transportation Strategic Planning Study, "The Federal Government has a fundamental role in ensuring the safety of the traveling public and the security and accessibility of the transportation system." One of the most prominent hazards identified for all modes of transportation was substance abuse by sensitive safety employees. Illicit drug use and alcohol abuse merited special attention because of their causal relationship to accident fatalities.

- Drinking is indicated as a factor in 50% to 55% of all fatal motor vehicle accidents;
- One-third of all truck drivers killed in motor vehicle accidents had been using alcohol or drugs;

- One-third of all recreational boating fatalities had a blood alcohol concentration (BAC) of 0.10% or higher; and,

- Several highly publicized fatal rail, air and transit accidents to which substance abuse was a contibuting factor.

These safety statistics and incidents indicate a growing need for and resulting emphasis on improved safety through substance abuse reduction.

The UMTA role in this safety emphasis has been the development of a new regulation to establish minimum standards for substance abuse programs in the transit industry. As a result of recently passed legislation, UMTA is developing a new drug testing regulation for sensitive safety transit employees. Program areas are expected to include education, awareness, and supervisory training, in addition to testing. Alcohol testing will be the subject of a separate regulation.

State And Local Governmental Roles

State and local governments have not, in large measure, taken a position on substance abuse in relation to transit agencies. State and local governments are primarily affected by substance abuse issues in the transit industry only when they are directly involved in the operation of transit services. The number of transit systems directly operated by state and local governments represents a small segment of the industry. Moreover, almost all of the transit systems directly operated by state and local governments would be guided by any UMTA regulation, since these transit systems receive Federal operating and/or capital funding assistance.

Individual Transit Agency Roles

At the time of the conduct of these surveys and publication of this report, the transit agencies across the U.S. did not have Federal regulations establishing minimum standards to guide locally developed drug and alcohol testing programs. Therefore, policies and practices are inconsistent among the many transit agencies. In addition, employee assistance programs vary widely in terms of the extent and availability of treatment for substance abuse. The effect of an UMTA substance abuse regulation would be to provide such minimum guidelines.

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II. STATEMENT OF PURPOSE

Study Justification

Substance abuse has been identified by the Federal Government as a risk to the public safety. There is evidence of widespread public concern about substance abuse in the general population and growing sentiment that sensitive safety employees should not be substance abusers and/or users of illicit drugs. Recent well-publicized accidents involving public transportation have documented that the use of illegal drugs and/or the high level alcohol consumption was a contributing factor. These concerns have prompted UMTA to closely examine the impact of substance abuse on safety in the transit industry.

Study Objective

UMTA's efforts to encourage a drug-free workplace in the transit industry and to extend its activities to promote safety were dealt a setback by the 1990 Federal court ruling that suspended the UMTA drug testing rule. Recently passed legislation provides UMTA the necessary statutory authority to impose a new regulation mandating drug and alcohol testing in the transit industry. However, at the time this project was conducted, no Federally-mandated alcohol or drug testing requirement was in place.

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III. STUDY APPROACH

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Assurance of Confidentiality

The study was designed to guarantee respondent confidentiality for both the transit agency and transit employee surveys. As a result, the survey databases were created to prevent the identification of each participating agency by name, location or operational characteristics. Even more exhaustive efforts were made to ensure both confidentiality and anonymity to the employee survey respondents. These assurances were provided to encourage a high response rate and to promote a high accuracy level for each response. Since both surveys were voluntary, no data were collected from any system or employee who did not consent to participate.

Transit Agency Survey -- The text of the survey instrument highlighted, in bold italic type, that "All data will be held in strictest confidence. Survey findings will not identify individual transit systems or respondents." The statutory basis for this assurance is the Privacy Act of 1974, and the Office of Management and Budget (OMB) Circular A-108. However, the public domain operating environment of transit systems could have made these assurances difficult to maintain. Therefore, our approach was to refrain from identifying individual agency data records by name.

Transit Employee Survey -- Transit employees were given several assurances of both confidentiality and anonymity in writing on the survey document, and verbally during the on-site conduct of the individual surveys. The process to preserve protection of personal and organizational identification included several measures.

- A computer scan answer sheet was used to record the employee respondent's answers on a separate sheet of paper from the survey. No personally identifying information (e.g., names) was requested or entered on the answer sheet.

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complete the survey. "Sensitive safety employees" was defined (as in UMTA's initial drug testing regulation) as those employees responsible for the "...operation of passenger-carrying equipment, including any directly related support activities that control or affect the operation of such equipment." Therefore, each of the 121,728 sensitive safety employees of the 100 largest systems had a chance to be selected or requested to complete the employee survey.

The largest 100 transit agencies ranked by total full-time-equivalent employees (FTE's) were extracted as a subset from the 400 system database for use as our population for the employee survey. These were also ordered from largest to smallest based on 1989 annual system ridership as reported in the UMTA Section 15 Report. Annual ridership was used as a key measure to design the sampling framework, since it directly relates to measures of risk and safety.

The database of 100 transit agencies was stratified into three agency groupings or strata based on annual ridership. The first stratum contains the largest eight transit agencies based on ridership. The second stratum is composed of the next 22 large transit agencies, and the third stratum contains the remaining 70 transit agencies.

- 1st Stratum 8 Largest Transit Agencies
- 2nd Stratum 22 Large Agencies
- 3rd Stratum 70 Medium-Size Agencies

These three groupings of the 100 largest transit systems were utilized in the systematic random selection process to select a representative sample of most types of transit agencies.

Survey Instruments

The transit agency and employee questionnaires were carefully designed to minimize the need for direct assistance with their administration in the field. This approach served two key purposes:

(1) To maintain respondent confidentiality and anonymity required by the Privacy Act of 1974; and,

(2) To reduce the cost of administering the survey.

Both survey instruments were thoroughly pretested with transit agency human resource managers and sensitive safety employees and then approved by the Office of Management and Budget (OMB) with suggested modifications. Copies of both the transit agency and employee survey questionnaires appear in Appendices A and B.

The transit agency questionnaire consisted of thirteen pages of questions on the types of drug and alcohol abuse programs at each agency and the testing results at those agencies that currently maintain testing programs. The respondents were asked to provide the answers to each question directly on the questionnaire.

The sensitive safety employee questionnaire was nine pages long, with questions concerning individual experiences with substance abuse. To a large extent, standard question items were used to permit comparability with the National Institute on Drug Abuse (NIDA) Household Survey. Transit employees were asked to provide answers on a computer scanner answer sheet to ensure anonymity. Each question on the employee questionnaire had numbered answer choices to choose from which were then filled in by the employees on the scanner answer sheet.

Survey Pretests

Transit Agency Survey -- The pretest of the transit agency survey was conducted with nine transit systems; nine is the maximum limit established for Federal government-funded surveys by the Office of Management and Budget (OMB). The nine systems were selected to include transit agencies of varying size and substance abuse program content. All nine surveys were completed and returned with complete information. Follow-up interviews with the manager responsible for the completion of each survey provided feedback on the questionnaire structure, content, and survey process. Minor modifications were completed, and the final survey instrument was submitted to the Office of Management and Budget for review and approval.

Transit Employee Survey -- The employee survey pretest was administered to sensitive safety employees of an accommodating transit system. The criteria used to select this transit system included a representative employee population of a typical transit system. To abide by OMB's limit on the number of pretests, a combination of nine sensitive safety employees was used for the pretest, including four operators, four mechanics and one first line supervisor. Each employee completed the survey in a fairly consistent time of 14 minutes. The survey process proceeded without follow-up questions from the employees on the survey instrument itself. Most questions from the employees concerned the purpose of the survey and the use of the results that would be obtained. The survey pretest resulted in little modification to the survey instrument or process, and it was then submitted to OMB for approval.

Both survey instruments were thoroughly pretested with transit agency human resource managers and sensitive safety employees and then approved by the Office of Management and Budget (OMB) with suggested modifications. Copies of both the transit agency and employee survey questionnaires appear in Appendices A and B.

The transit agency questionnaire consisted of thirteen pages of questions on the types of drug and alcohol abuse programs at each agency and the testing results at those agencies that currently maintain testing programs. The respondents were asked to provide the answers to each question directly on the questionnaire.

The sensitive safety employee questionnaire was nine pages long, with questions concerning individual experiences with substance abuse. To a large extent, standard question items were used to permit comparability with the National Institute on Drug Abuse (NIDA) Household Survey. Transit employees were asked to provide answers on a computer scanner answer sheet to ensure anonymity. Each question on the employee questionnaire had numbered answer choices to choose from which were then filled in by the employees on the scanner answer sheet.

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1. Operating a revenue service vehicle, whether or not such vehicle is in revenue service;

2. Controlling dispatch or movement of a revenue service vehicle;

3. Maintaining revenue service vehicles or equipment used in service; and,

4. Supervising an employee who performs a function listed in l-3.

However, the categories used include all of these defined sensitive safety employees as a minimum, and comprehensively cover all sensitive safety employees. An additional aspect is the use of full time equivalent employees as the measure from Section 15, which may differ slightly in other employee counts that are based on full- and part-time employees.

Conduct Transit Agency Survey

The agency survey was conducted through an organized mailout with a personalized letter to the Chief Executive Officer or General Manager of each of the 400 selected transit systems. Contact was established to maintain ongoing communication with the key person, such as the human resources manager, who had been designated to complete the survey and with whom we could maintain a dialogue to answer any questions and ensure completion of the survey. A total of 317 completed survey questionnaires were returned, and the final database includes 306 useable responses. Among the 317 returns, seven agencies operated service through multiple contract operations with differing policies and were therefore deleted from the survey database. Three other agency survey returns were duplicates. In addition, one commuter rail system was excluded. The remaining 306 survey responses represent the complete transit agency survey database.

Questionnaires were mailed to potential respondents in mid-May, 1991, and all data collection activities were completed by the first week of August, 1991. Quality control checks were incorporated into each stage of the editing, coding and data processing of the completed survey forms. Questionnaire items related to drug and/or alcohol testing were checked against each other to assure appropriate completion and logical consistency throughout each document. While an incomplete item, or an inconsistency among items, could frequently be reconciled based on a close inspection of the questionnaire, problems related to particularly critical data items warranted a call-back to the survey respondent for clarification. Examples of conditions that resulted in a callback include:

1. Operating a revenue service vehicle, whether or not such vehicle is in revenue service;

2. Controlling dispatch or movement of a revenue service vehicle;

3. Maintaining revenue service vehicles or equipment used in service; and,

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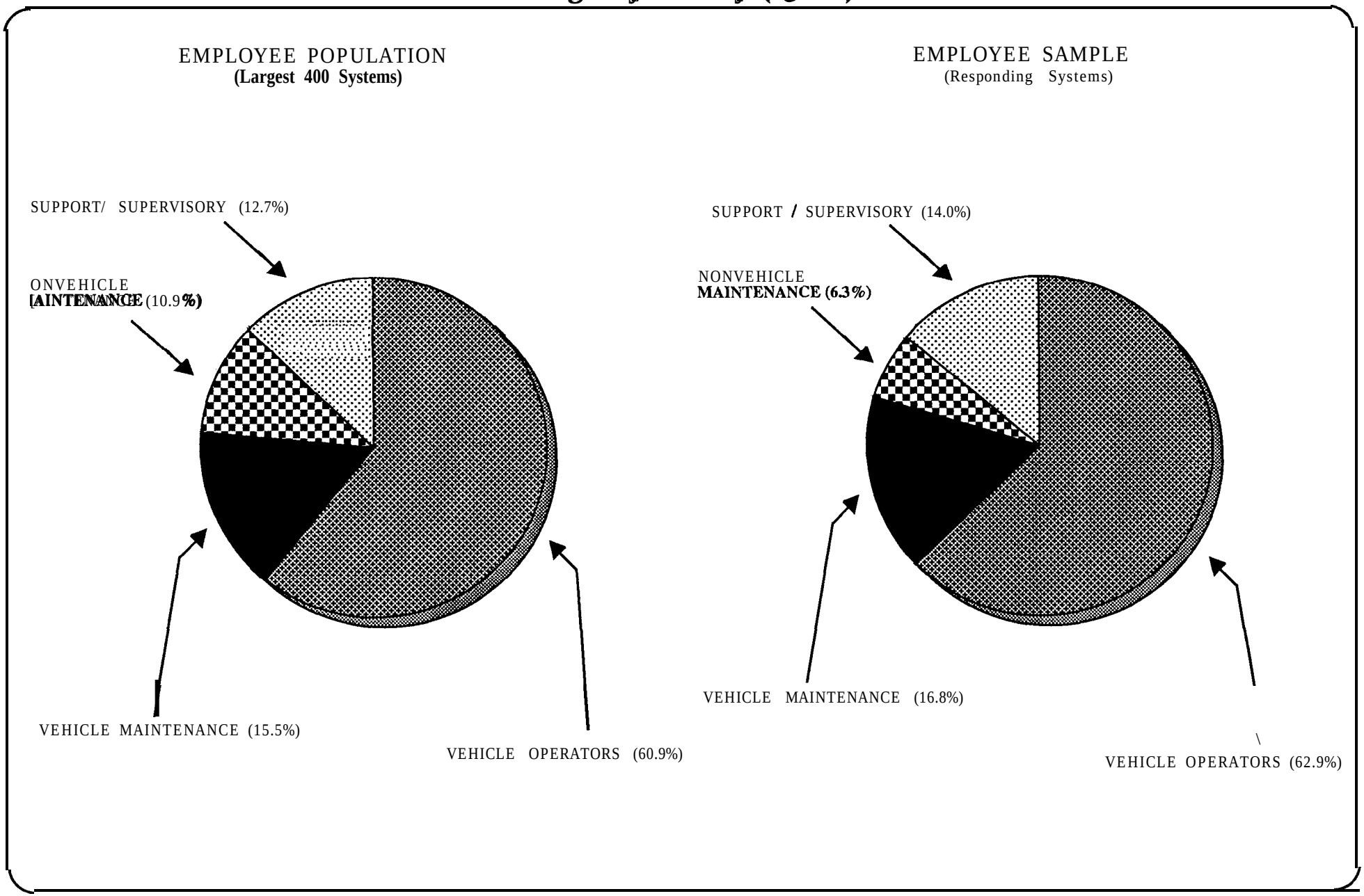
Figure 1
Universal Employee Population Compared To Survey Employee Sample
Agency Survey (Q. - a)



SOURCE: Transit Agency Substance Abuse Survey

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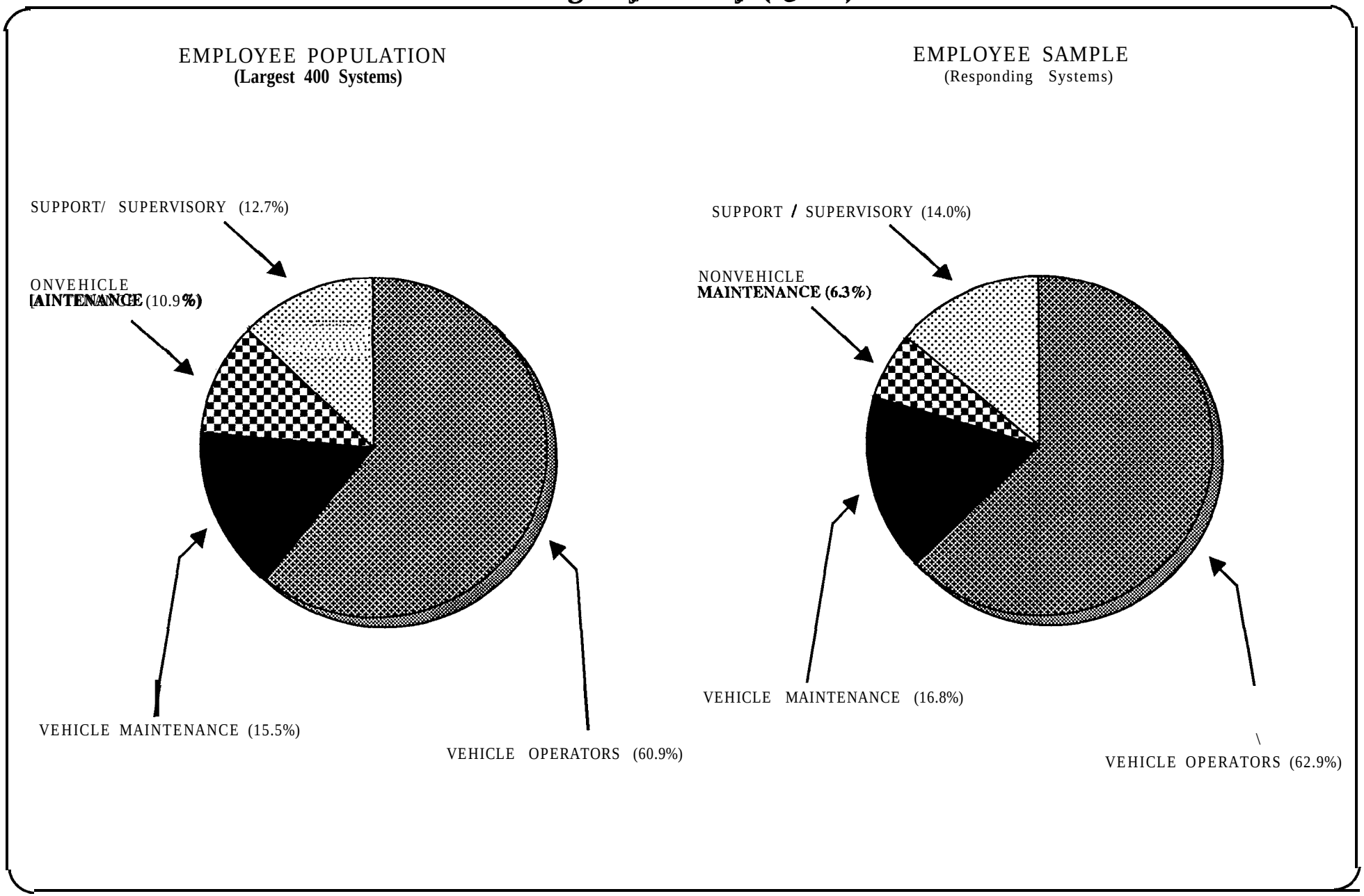

SOURCE: Transit Agency Substance Abuse Survey

The first positive response came in late May, and the survey dates were scheduled for June. From this first set of 14 selected systems, six joined the process, provided access to their employees and supported the entire survey effort. Replacement systems were randomly selected through a similar selection process and contacted as soon as notification from nonparticipating agencies was received. It required 13 replacement systems to reach the additional three participating agencies. Two more replacement transit systems offered to participate in the survey process but unfortunately too late in the project schedule to be included. The employee survey was then conducted at the nine transit agencies that agreed to participate in this research effort.

Employee Survey Process -- The next step after establishing contact at participating systems was to establish dates for the conduct of the survey and identify appropriate facility locations with a representative mix of both operating and maintenance personnel. During this process every effort was made to schedule at least two agencies in weekly coordinated segments. A customized system-specific letter was prepared for distribution to the employees which explained the survey process and provided the dates it would be conducted. This letter was distributed by the transit authority to employees prior to survey days.

At the first system surveyed, a systematic random sampling process was used to select sensitive safety employees from an employee roster provided by the system. The employee roster contained a total of almost 300 employees from which every second and third name was chosen following a random start. This procedure yielded a list of 200 employee names, which was then returned to the transit system to identify those employees unavailable on the survey dates due to scheduled day off and other absences from work. Because of the large number of eliminations, the sample was supplemented with 30 additional random selections to maintain the 200 employee sample.

Two operational problems arose from this initial method of selecting an employee sample. First, the process used to randomly select employees who would be available for the survey was a time-consuming effort that required extensive effort from the cooperating transit system. The second problem was an employee concern that surfaced when individuals were notified of their selection to participate in the survey in personal letters sent to them. Selected employees questioned how they were selected to participate in the survey when fellow employees were not. Their primary concern was the validity of the selection process and uneasiness about being individually identified.

These issues were resolved by changing our approach to employee sample selection. We subsequently drew a census of all employees at randomly selected facilities within the transit system and eliminated the individual employee preselection process. The census approach eased employee concerns about the selection process since all employees at a given facility were now selected to participate in the survey. An effort was made to ensure full coverage of all types of sensitive safety employees in each facility by distributing the surveys in all work areas of each facility. The employee

surveys conducted at the subsequent systems flowed smoothly, with no concerns expressed about the process.

Employee Survey Response – The final results of the transit employee survey demonstrate a good response from transit employees responding to the survey and who represent a fairly geographically dispersed set of participating transit agencies.

- A final tally of 1,975 employee survey responses comprises the transit employee database.

- These completed survey responses met the criteria for completeness of response and general consistency of related answers.

- There were nine participating agencies representing all three system size strata and a fairly geographically dispersed group of systems representing most of the regions of the country.

  Two of the eight largest systems participated in the survey. A third, which represented the third replacement step in the request process, agreed to participate, but it was too late in the project schedule to be included.

  Two of the next 22 largest systems participated in the survey. Two other systems that initially agreed to participate decided to withdraw after union opposition was raised. In the third set of replacement systems, two systems responded positively, but too late in the project schedule to be included in the survey.

  Five of the next 75 largest systems participated in the transit employee survey. This represented the full survey design requirement for transit systems from stratum three.

- The sensitive safety employee profile of the nine participating agencies by strata has a proportional representation similar to the Section 15 transit agency population base.

  Participating agencies in the first stratum represent 57% of the total sensitive safety employees in the agency survey sample, and, in comparison, the population of the first stratum includes 54% of the total sensitive safety employees in the total employee survey population (largest 100 transit systems).

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IV. ANALYSIS OF RESULTS

This section presents the analysis of the survey results and secondary information collected as part of the survey process. The initial comparison is the transit sensitive safety employee survey results with the results of similar NIDA surveys on substance abuse in the general population. The analyses of the agency and employee surveys are presented and followed by comparisons of all three survey results. Lastly, conditions for use of the information base and potential limitations of the results are presented.

Benchmark Of Industry Experience -- Summary Of Results

Comparisons With The General Population -- Substance use in the general population has been estimated based on survey research and the results documented in the "National *Household Survey On Drug* Abuse: *Population Estimates* 1988," published by the National Institute on Drug Abuse (NIDA), and recently updated with 1990 results. The NIDA report has been used to provide a general benchmark for comparisons with the transit industry results. The reported substance abuse in the general population had the following characteristics in comparison with the transit employee survey results.

Table 1 Comparisons Of Self-Reported Substance Abuse
By Sensitive Safety Transit Employees With That Of The General Population

	Self-Reported Drug Use			Self-Reported Alcohol Use		
	General Population		Transit Employees	General Population		Transit Employees
Year Of Survey	(1988)	(1990)	(1991)	(1988)	(1990)	(1991)
Ever Used	36.6%	37.0%	29.1%	85.0%	83.2%	78.6%
Used In The Last Year	14.1%	13.3%	7.2%	68.1%	66.0%	66.5%
Used In The Past Month	7.3%	6.4%	6.9%[1]	53.4%	51.2%	48.6%

[1] A lower percentage (3%) of current drug users was reported in the response to one question related to drug use during the past 30 days. However, the positive drug use percentage reached a more consistent level of about 6.9% in the other employee survey responses related to current drug use.

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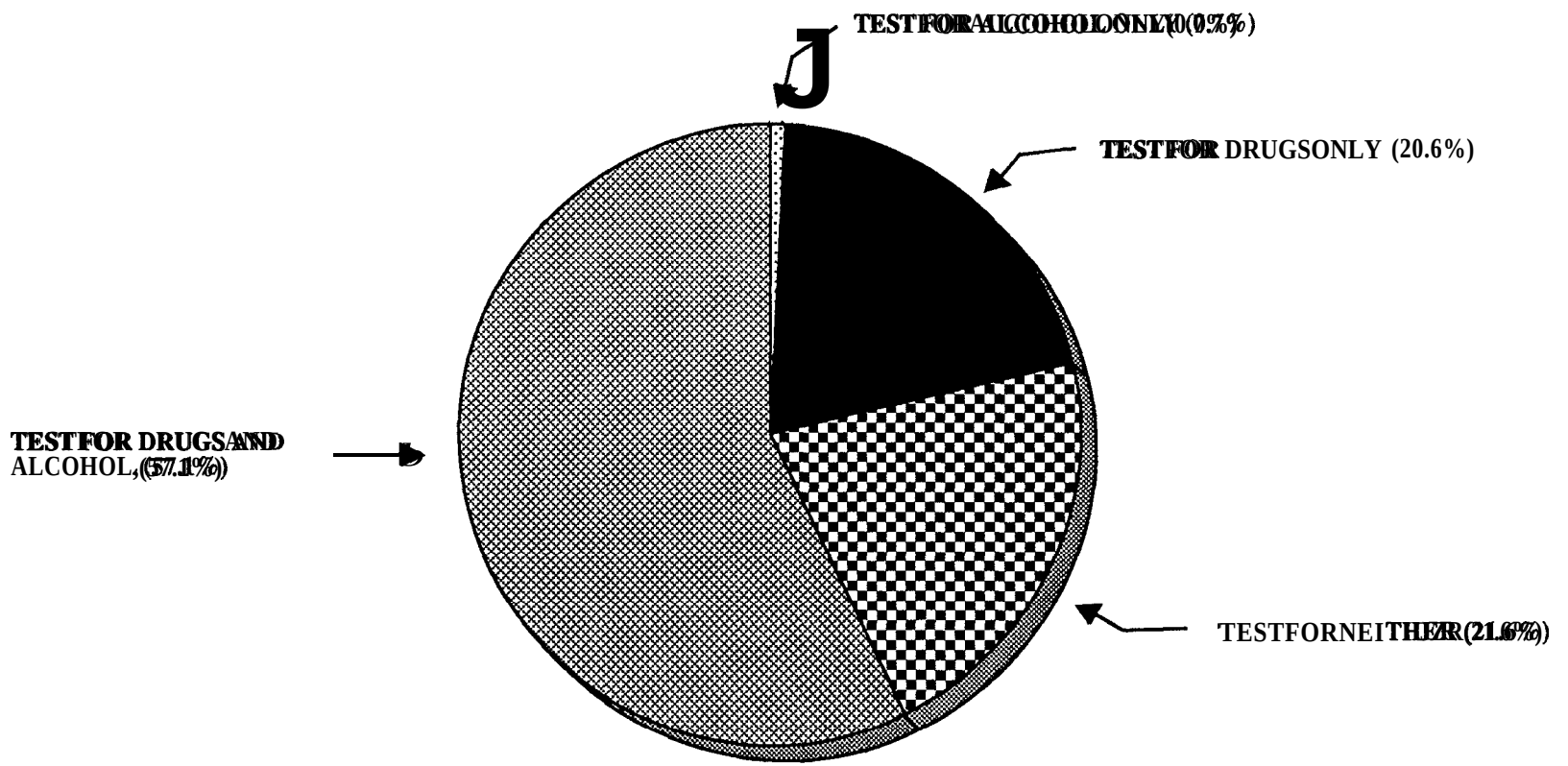
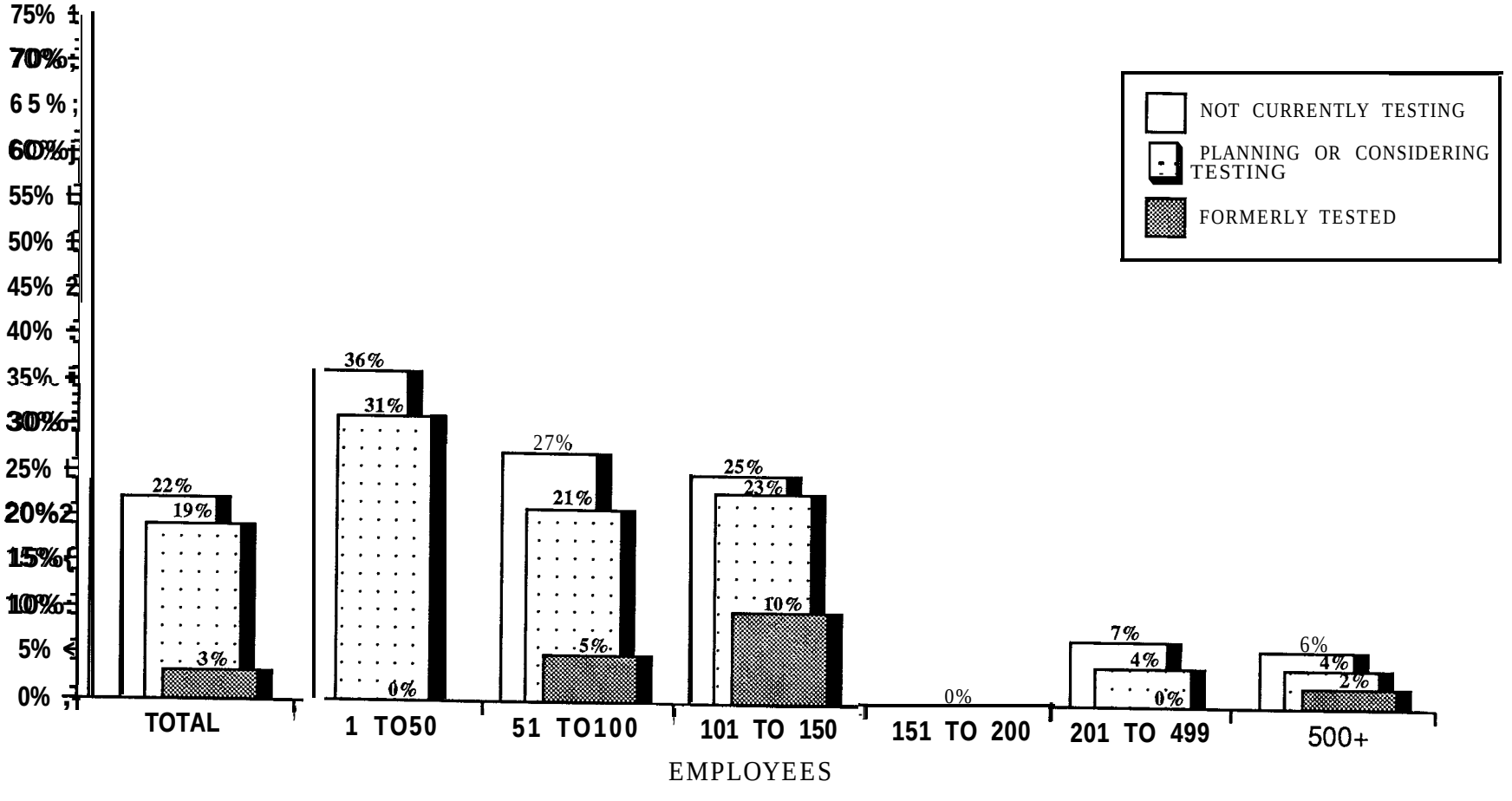
Figure 3
Substance Abuse Testing Practices (Q. - 4 & 15)



SOURCE: Transit Agency Substance Abuse Survey

Figure 4
Former And Planned Drug Testing Experience Of Current Nontesting Agencies (Q. - 13 & 14)



BASE = ALL SYSTEMS (306)

SOURCE: Transit Agency Substance Abuse Survey

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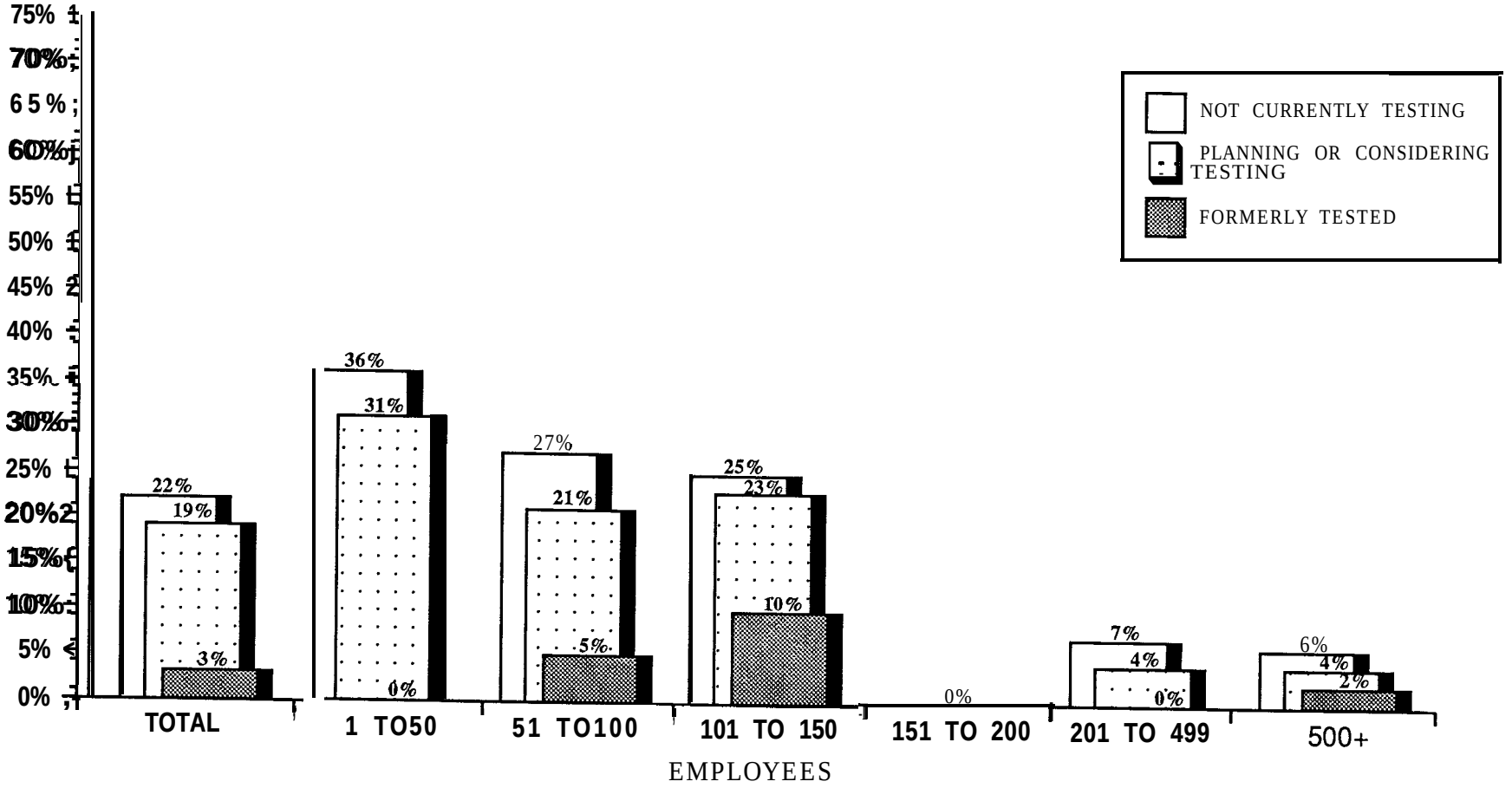
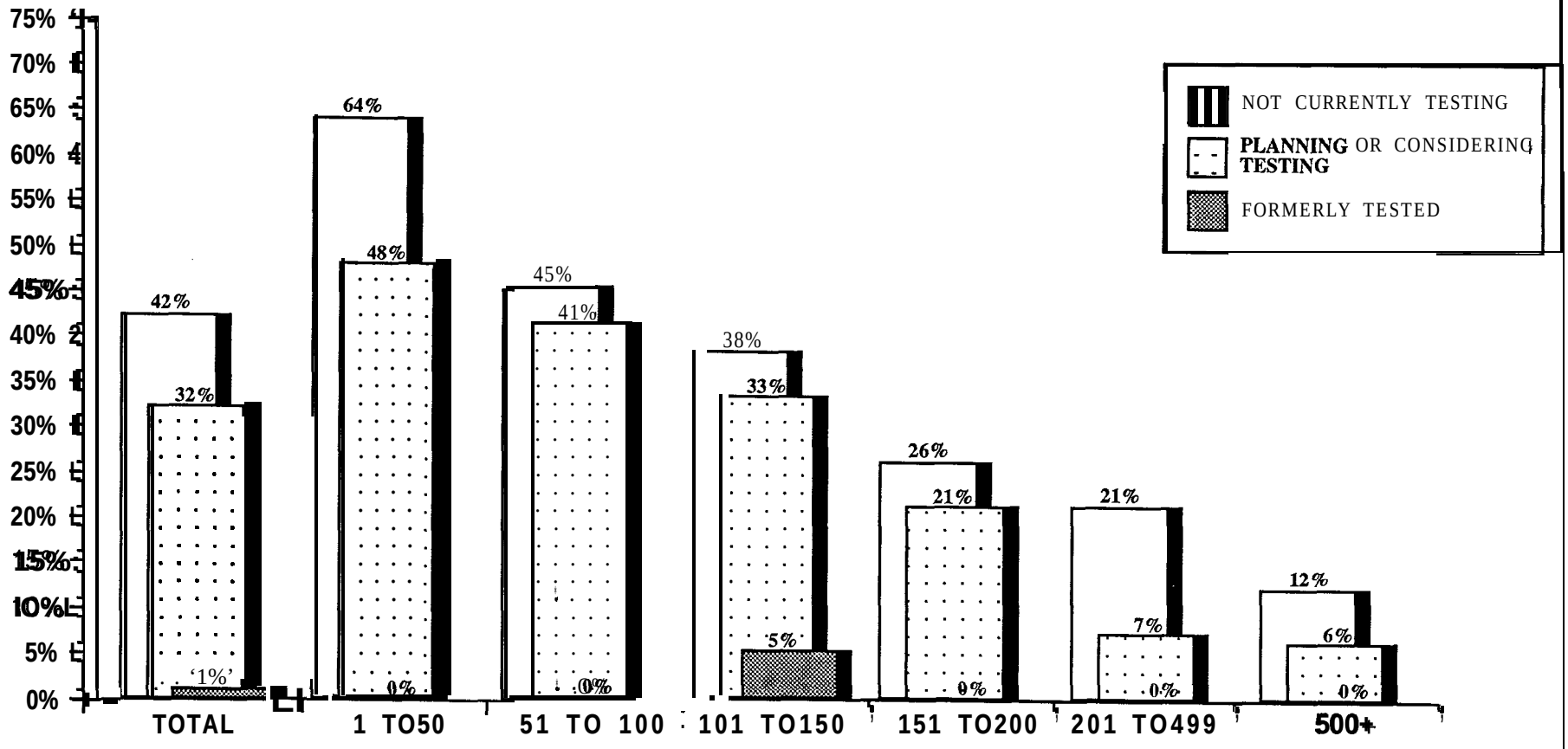


BASE = ALL SYSTEMS (306)

SOURCE: Transit Agency Substance Abuse Survey

Figure 5
Former And Planned Alcohol Testing Experience Of Current Nontesting Agencies (Q. - 25 & 26)



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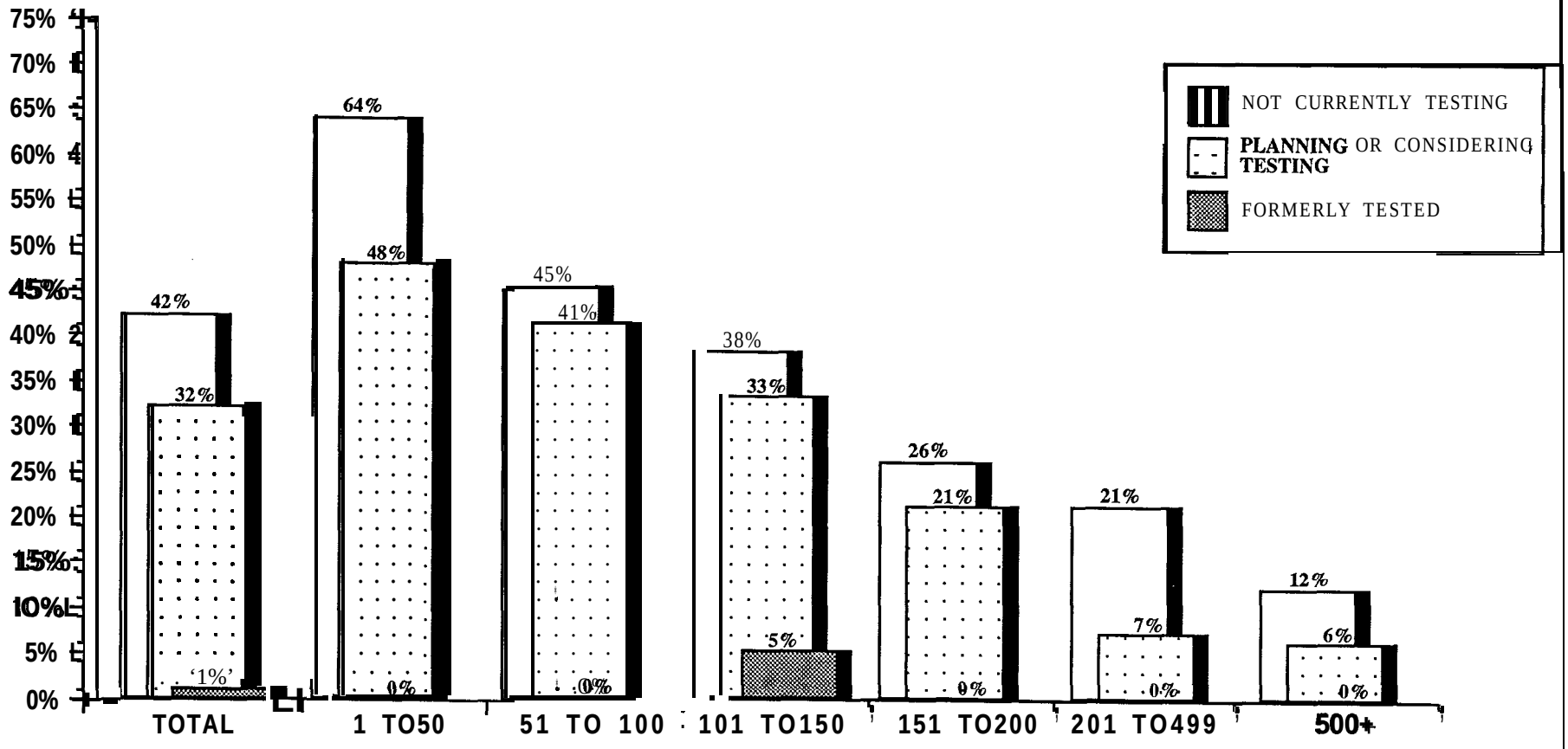

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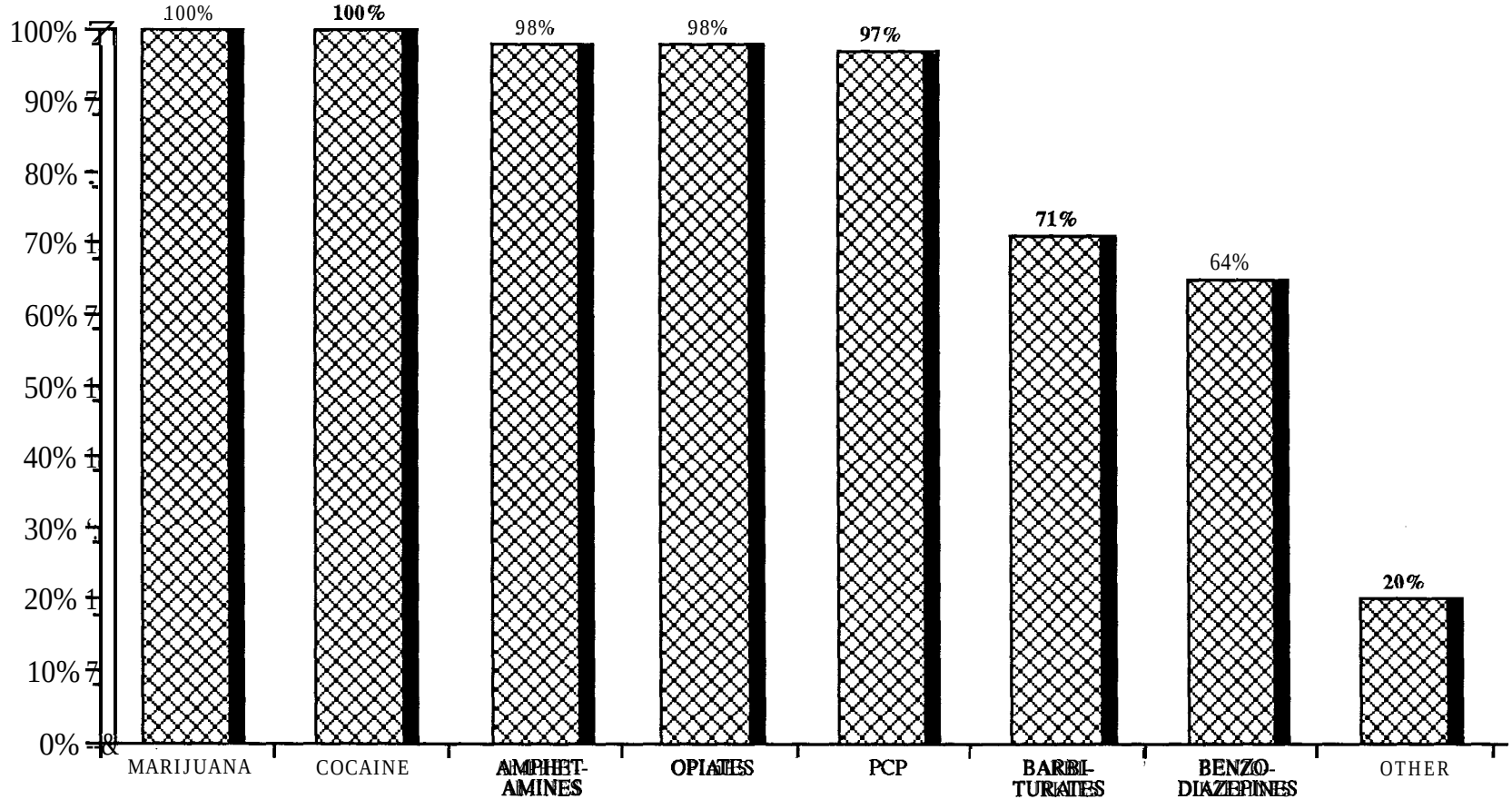
SOURCE: Transit Agency Substance Abuse Survey

Figure 6
Percentage Of Systems With Drug Testing That Test For Selected Substances
(Q. - 6)



N = 238

SOURCE: Transit Agency Substance Abuse Survey

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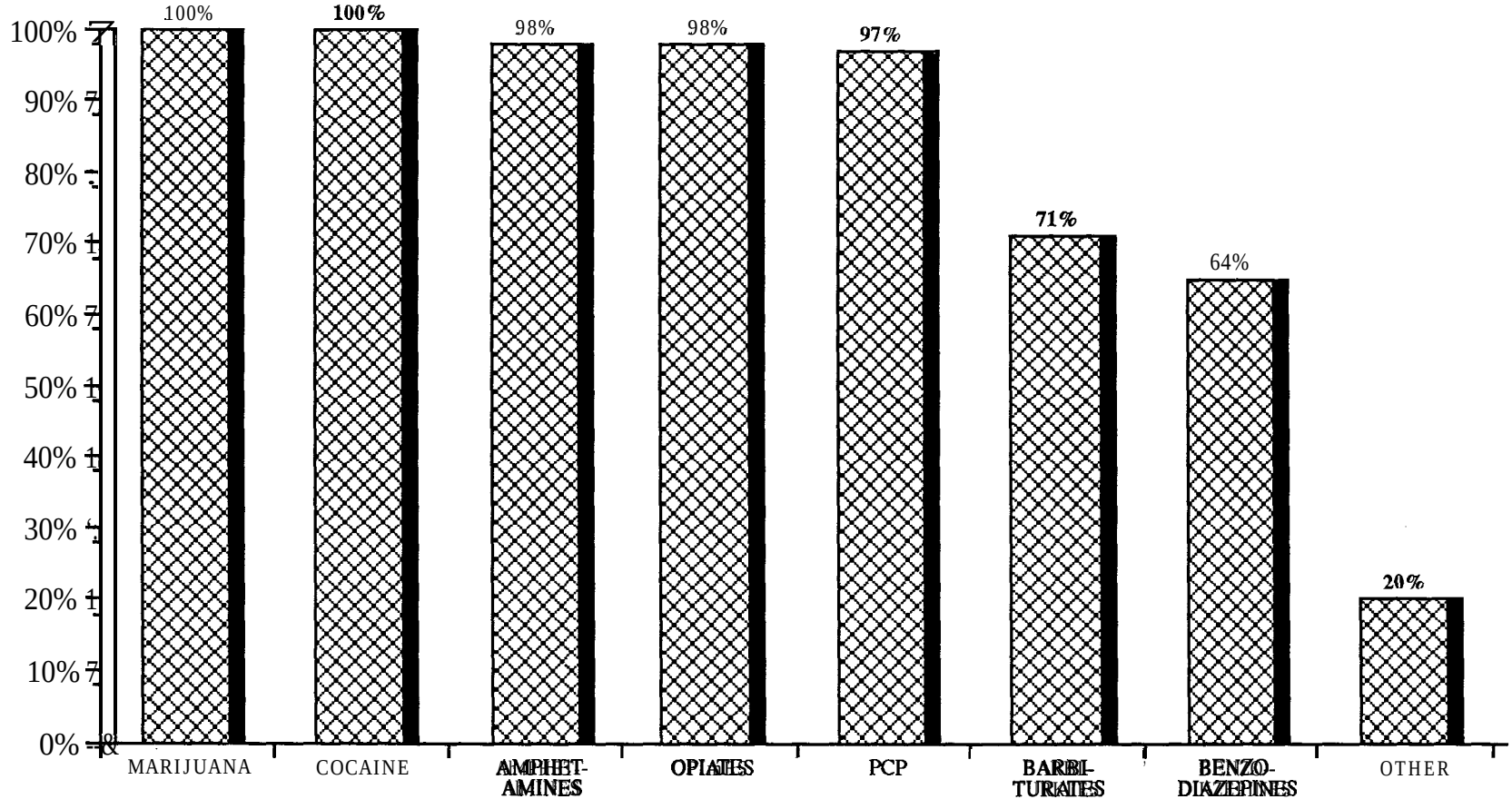

N = 238

SOURCE: Transit Agency Substance Abuse Survey

Confirmation And Verification -- Almost all systems (93%) routinely confirm initial positive drug tests by the testing laboratory. A licensed physician serving as a Medical Review Officer (MRO) to verify positive test results is almost as prevalent (91%), but drops off for the largest transit systems, which may utilize their in-house medical directors or consulting physicians in that role and with a different title; only 81% of systems with 500 or more employees reported utilizing MRO review. In follow-up interviews with a number of systems to reconcile drug test totals, it was discovered that managers may not be informed of positive screening test results until they have been confirmed by the laboratory; as a result, some systems were unable to provide data on initial positive test results, and because of these omissions, counts on initial positive tests are not presented in the accompanying tables.

SECTION IV -- Drug Testing: Types

Reasons For Testing -- Programs including preemployment drug testing are almost universal in the American transit industry, and reasonable cause testing is almost as prevalent. Other types of drug testing are less widespread. Fewer than three-quarters of transit systems routinely conduct drug tests following an accident, and fewer than two-thirds test employees returning to duty. Many agencies did not draw a clear distinction between reasonable cause and postaccident testing. Only 57% of the respondents did not overlap the designation between reasonable cause and postaccident testing -- the other agencies mixed the two testing categories where postaccident was included as one of the triggers for a reasonable cause test. Just over half of all systems employ periodic drug testing in conjunction with regular medical examinations, and only 18% claim to randomly test employees for drugs.

Larger systems are more likely to test for drugs for all testing categories. Notably, all systems that have experienced a substance abuse-related accident in 1990 test both for preemployment and for reasonable cause, and have above average likelihoods of testing under most other circumstances.

Random Drug Tests -- Random drug testing programs sometimes do not meet the standards laid out in UMTA's now-suspended drug testing regulation, primarily in regard to testing at a fixed ratio to number of employees. Three-quarters of the 36 systems that reported conducting random drug tests follow the UMTA random testing procedure (Figure 8). Among those that do test at a fixed ratio, the 50% ratio prescribed by UMTA is used by more than half. In nearly all instances, employees to be tested are not notified prior to reporting to work about the tests, which are distributed across shifts, days and months. Only a relatively small minority of systems randomly test all employees; among the majority (70%) of systems, only sensitive safety employees are randomly tested.

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Reasonable Cause Tests -- The large majority (90%) of responding transit systems that have testing programs reported conducting reasonable cause testing. Reasonable cause tests are triggered by many reasons such as behavior and absenteeism. The survey also attempted to measure the extent that accidents contribute to the conduct of reasonable cause testing. Transit systems are almost evenly split on the role and definition played by accidents in triggering reasonable cause testing: 42% report that "most" reasonable cause tests are triggered by an accident, whereas 38% report that "very few" are. In general, smaller systems are more prone than larger systems to test after an accident. The exception to this pattern is systems with 201 to 499 employees, the only category in which the majority of reasonable cause tests are triggered by accidents.

SECTION V -- Drug Testing;: Results

Variation By System Size -- Tables A-19 and A-20 present the number of urine samples submitted to laboratories for analysis, lab-confirmed positive test results, MRO-verified results, and percent of submitted samples that were MRO-verified positive for all employee types, categories of drug testing, system size, and substance abuse-related accident experience. The key difference between the two main drug testing results tables is the inclusion of applicants and nonsensitive safety employees in Table A-19, and the presentation of drug testing results in Table A-20 for only sensitive safety employees.

Not surprisingly, larger systems submit and verify as positive far more samples than smaller systems. However, there is little variation by system size with respect to the percentage of samples that are MRO-verified positive. The exception is the largest systems (500 or more employees), which have a substantially higher percentage of MRO-verified positive results. Systems that have experienced substance abuse-related major accidents also tend to generate a higher proportion of MRO-verified positive results. This may, in part, be related to system size, because the largest systems are more likely to have had one or more substance abuse-related accidents.

Similar results are found when sensitive safety job categories -- rather than drug test categories -- are disaggregated. Table A-20 shows the same data as Table A-19, except that the analysis is confined to sensitive safety employees and excludes the results for applicants and other nonsensitive safety employees. While the total number of drug tests was substantially less for only sensitive safety employees, the percentage of MRO-verified positive drug test results follow a similar pattern, related to size of system, to that of the positive test results for all employees and applicants. The proportions of positive drug testing results by system size were slightly higher for the sensitive safety employees than, in most instances, those for all employees and applicants.

Variation By Job Categories -- As shown in Table A-21 and summarized in Figure 9, most MRO-verified positive drug tests involve vehicle operators, followed by the combination of support/supervisory categories, then vehicle maintenance, and other equipment maintenance. The combination of support/supervisory categories, in fact, ranks second to vehicle operator in the proportion of samples submitted. To account for and compare with the number of samples submitted by job category, the proportion of MRO-verified positive drug tests is also provided by job category. The supporting information of the proportions by job category of MRO-verified positive test results provides a comparison point with the samples by employee type. Figure A-28, which plots the mean number of samples submitted by more detailed job categories (for those systems submitting samples) against MRO-verified positive results, shows that the generic category "other job categories" seems to have a disproportionately high number of confirmed positive results. As shown later, this is due to the relatively higher rates of both lab-confirmed and MRO-verified positive results among the largest (500 or more employees) systems and the much higher representation of this other job category at the larger systems.

When the mean number of samples submitted, lab-confirmed and MRO-verified positive test results are considered, the results across job categories are not very consistent; the percentage of MRO-verified positive test results varies between 0.7% and 4.5%. Drug abuse appears to be slightly more prevalent among equipment maintainers and inspectors than among vehicle operators. Results of urine sample tests, for whatever reason, indicated the highest proportion of positive test results among "other equipment maintainers" **(4.5%),** followed closely by inspectors **(3.9%),** and vehicle operators at 3.3%. The same pattern generally holds for every system size, although the extraordinarily high positive rate for "other job categories" in systems with 500 or more employees is worth noting. This higher positive test rate with the larger systems accounts for the "other job categories" group having a higher MRO-verified positive rate overall and in comparison with the operations and maintenance job categories.

Variation By Type Of Test -- Shifting focus from job title to reason for testing, preemployment tests, followed by return-to-duty and reasonable cause tests account for the bulk -- in terms of sheer numbers -- of confirmed positive tests (Figure 10). Unlike the case with job categories, however, this ranking is not accounted for by the volume of samples submitted. As shown in Figure A-29, preemployment, return-to-duty and reasonable cause tests all appear to have disproportionately higher rates of positive results than other test categories. Indeed, when positive drug tests are considered as a percentage of all samples submitted (Table A-19 -- **3.7%),** these three test categories were the highest (Table A-30). Not surprisingly, periodic tests in association with medical examinations (presumably announced in advance) yield very few positive results. This pattern generally holds true regardless of system size (Tables A-31 through A-36).

A comparative finding is that of those few systems which test randomly, only 2.4% of the employees tested positive for drug use (Table A-30). This compares

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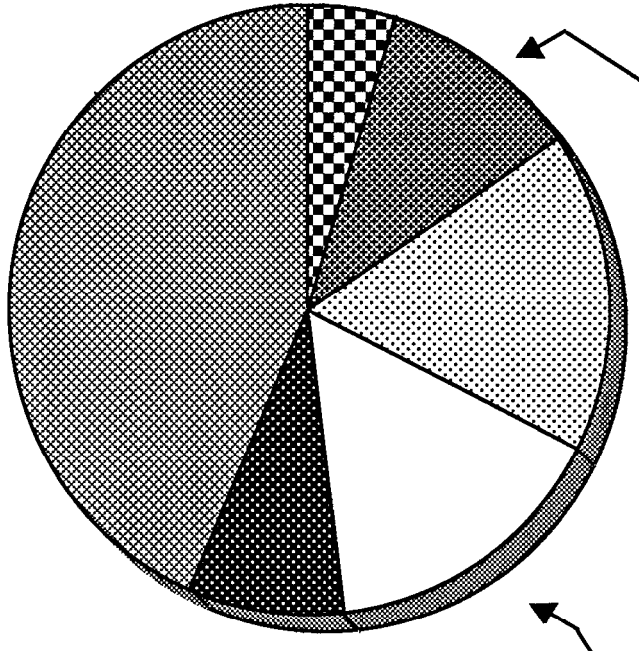
Figure 10
Proportion Of MRO - Verified Positive Drug Tests By Test Category (Q. - 12)



RANDOM

SAMPLES SUBMITTED	(7.5%)
MRO - VERIFIED POSITIVE	(5.3%)
POSITIVE TEST RATE	(2.6%)

PERIODIC

SAMPLES SUBMITTED	(32.0%)
MRO - VERIFIED POSITIVE	(11.0%)
POSITIVE TEST RATE	(1.3%)

PREEMPLOYMENT

SAMPLES SUBMITTED	(33.3%)
MRO - VERIFIED POSITIVE	(42.8%)
POSITIVE TEST RATE	(4.8%)

RETURN-TO-DUTY

SAMPLES SUBMITTED	(19.3%)
MRO - VERIFIED POSITIVE	(16.6%)
POSITIVE TEST RATE	(5.5%)

POSTACCIDENT

SAMPLES SUBMITTED	(7.6%)
MRO - VERIFIED POSITIVE	(83%)
POSITIVE TEST RATE	(4.1%)

REASONABLE CAUSE

SAMPLES SUBMITTED	(8.3%)
MRO - VERIFIED POSITIVE	(15.9%)
POSITIVE TEST RATE	(7.1%)

MRO - Medical Review Officer

SOURCE: Transit Agency Substance Abuse Survey

favorably with the self-reports of a random sample of the U.S. population surveyed by the National Institute on Drug Abuse in 1988, in which 7.3% admitted to using illicit drugs within the past month (National Household Survey on Drug *Abuse Population Estimates,* Table 2A, p. 17). The initial findings from the NIDA 1990 survey resulted in a lower, 6.4%, of the general population reported illicit drug use in the preceeding 30 days.

However, a precise comparison is difficult because of the differing time frames used; only a portion of the 7.3% who use illicit drugs in a given month uses them on any given day. A more pertinent comparison is with the self-reported usage rates from the employee survey where a comparable percentage of transit employees reported daily use of illicit drugs.

SECTION VI -- Alcohol Testing;: Methods

Techniques -- Urinalysis is the most common method for transit agencies of checking for alcohol abuse, followed closely by blood analysis, and trailed at some distance by the breathalyzer (Figure A-37). The popularity of urinalysis may be due to its use in drug testing; in follow-up interviews, some systems told us that they use portions of the same urine sample for separate drug and alcohol tests.

Confirmation And Verification -- Initial positive results from urinalysis are almost always confirmed, but confirmation occurs less frequently for blood and for breathalyzer tests. Similarly, use of a licensed physician as a Medical Review Officer (MRO) to verify alcohol test results is, at 85%, slightly less prevalent than use of an MRO to verify drug test results. This is largely due to the limited use of MROs in alcohol testing by the very large (500-plus employees) transit systems; almost one-third do not use them. MRO use for confirmation of drug test results by these systems also lags behind smaller systems, as noted above.

SECTION VII -- Alcohol Testing;: Types

Reasons For Testing -- Only reasonable cause alcohol testing approaches universal use among U.S. transit systems that conduct alcohol testing programs. Preemployment alcohol tests are used by 61% of systems, compared to 96% that conduct preemployment drug testing. This is particularly noteworthy given the clear belief among managers that alcohol is the primary substance abuse problem in their transit systems.

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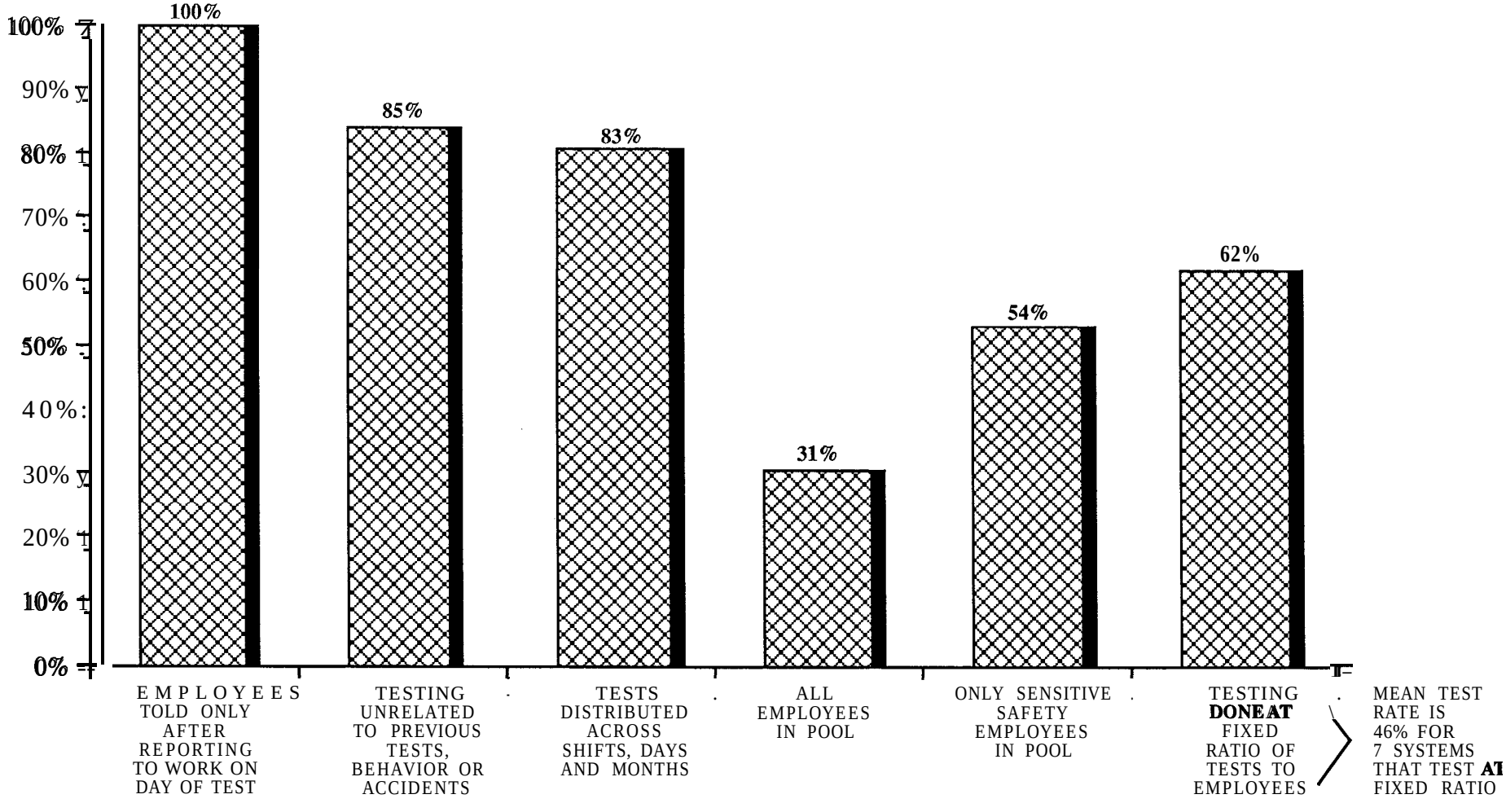
Figure 11
Characteristics Of Random Alcohol Testing Programs (Q. - 21a)



N = 12, 13

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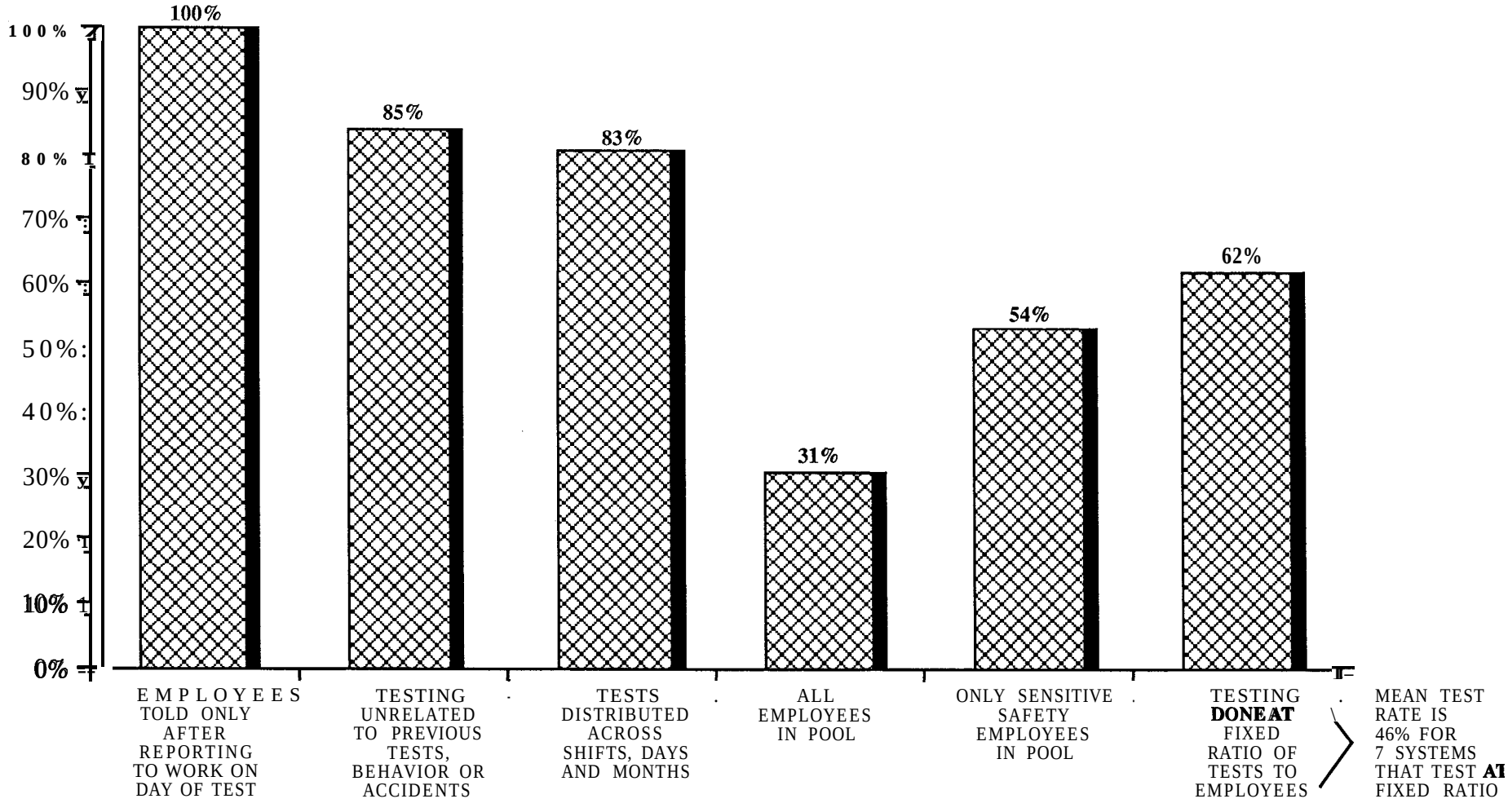

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positive results are expressed as a percentage of samples submitted, other equipment maintainers, signal maintainers and the other job categories (all of which typically include a large proportion of relatively low-skilled employees such as vehicle servicers, maintenance-of-way laborers, etc.) stand out with high rates of positive test results. The other equipment maintainers also had a high percentage of positive drug tests. Data are provided for a range of system sizes, but the relatively small sample bases make it difficult to generalize about patterns by size.

Variation By Type Of Test -- As with drug tests, preemployment, reasonable cause and postaccident alcohol tests constitute prominent shares of MRO-verified positive test results. However, postaccident MRO-verified positive alcohol tests are more prominent than the positive drug testing results and account for a larger share of all confirmed positive results than do return-to-duty tests, as might be expected (Figure 13).

The ranking of MRO-verified positive test results for alcohol demonstrates that the incidence rates are driven more by the testing method and its corresponding characteristics than the volume of samples submitted. As illustrated in Figure A-54, which plots the mean number of MRO-verified positive results against samples submitted, reasonable cause tests appear to have disproportionately high rates of positive results, while periodic and completely random tests have disproportionately low rates. This becomes more evident when confirmed positive results are expressed as a percentage of samples submitted; reasonable cause tests have a much higher likelihood of yielding a positive test result than any other reason for testing, while periodic and completely random tests yield only a fraction of one percent MRO-verified positive results. As with job categories, small survey sample sizes make it difficult to draw meaningful comparisons among test types and between system size categories.

SECTION IX -- Overall Pattern Of Substance Abuse

Preferred Substances Of Abuse -- It is clear from Figure 14, which presents the distribution of MRO-verified positive test results by substance, that cocaine is the major substance of abuse in U.S. transit systems, followed by marijuana and opiates. Tables A-62 through A-69 present a grid showing job title by substance of abuse for all reporting systems, and for systems of similar sizes. Cocaine and marijuana are the clearly the substances of choice for all types of sensitive safety employees. This contrasts sharply with management's perception, noted before, that alcohol is the major substance of abuse among transit system employees. However, it should be borne in mind that these figures represent MRO-verified testing results and may not be reflective of actual substance use. It is possible that alcohol would figure far more prominently if, in fact, alcohol testing was as pervasive as drug testing.

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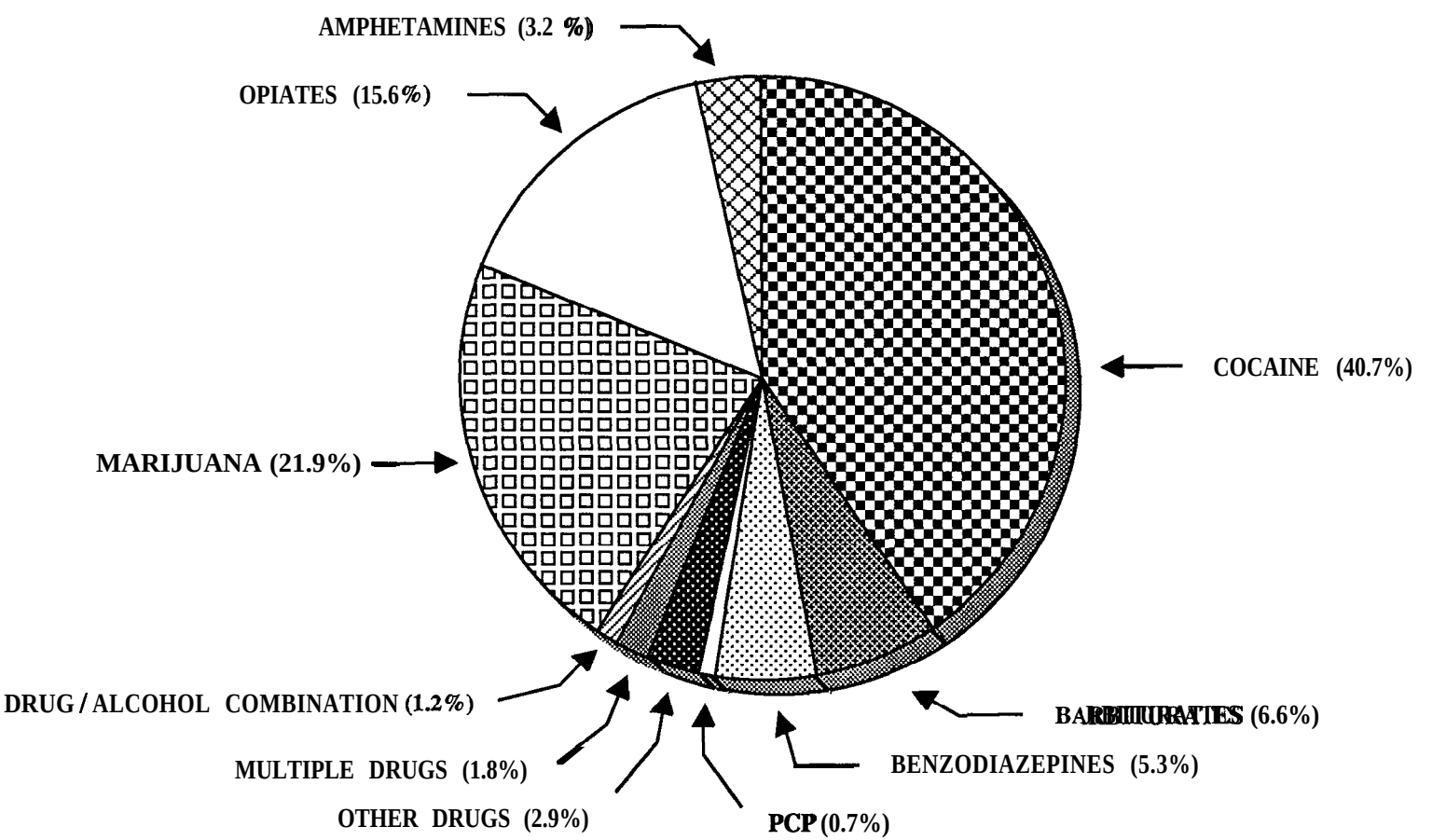
Figure 14
Proportion Of MRO - Verified Positive Tests By Substance (Q. - 27)



MRO - Medical Review Officer

SOURCE: Transit Agency Substance Abuse Survey

Marijuana and cocaine are the major substances found when smaller systems test; the full range of substances does not appear until systems with 500 or more employees are examined (Table A-69), where opiates, barbiturates and benzodiazepines become a factor. At every level of size, phencyclidine (PCP) is rare. The 28 systems that reported a substance abuse-related accident in 1990 show higher positive rates on most substances than the average system, with alcohol, barbiturates and opiates appearing more often.

B. TRANSIT EMPLOYEE SURVEY RESULTS

This section of the report analyzes the results of the transit employee survey; the results are discussed in the order in which they were addressed in the transit employee questionnaire.

- SECTION I -- General questions on the employee's work experience with drug and alcohol testing at current and previous places of employment, as well as personal knowledge of coworker consumption of drugs and alcohol.

- SECTION II -- Personal experiences with alcohol consumption, including beer, wine, liquor and mixed drinks, and recent consumption levels and frequency.

- SECTION III -- Personal experiences with the use of drugs, including prescription-type drugs such as pain killers, stimulants ("uppers") and sedatives ("downers") as well as other street drugs like marijuana, cocaine, heroin, "angel dust," etc. This also includes substances that can be inhaled such as glues or sprays.

- SECTION IV -- Attitudinal questions about the survey and the quality of the answers given.

Presented below are key findings from the tabulation and analysis of the transit employee survey. Employee survey data were weighted to make the results projectable to all transit sensitive safety employees (see appendix D for details of the weighting process). The information presented here can be treated as projected population estimates. In all cases, frequency distributions were calculated based on the number of employees that responded to each question, followed by cross-tabulation of particular question responses that provided additional insight. The analysis includes the interpretation of these results and their likely impact on future Federal government and transit agency actions related to the important issue of substance abuse.

SECTION I -- General Employee Work Experience

Drug And Alcohol Testing Experience -- Employees were queried about their experiences with drug or alcohol testing in the workplace, at both previous and current places of employment (Figure 15). Answers to this set of questions document the recently expanding coverage of testing programs, based on the employees' perceptions and memories. The vast majority (76% of all employees) were not tested for drug or alcohol use by any previous employer, while the remaining 24% were tested at least once. It should be noted that for some employees, the current job is their first full-time permanent job, while others with previous jobs may not have been employed in sensitive safety positions or even in transit.

The application process for their current position required a preemployment drug or alcohol test for 33% of the sensitive safety employees -- up almost ten percent over previous employers. The current employer (the transit system) did not require a drug or alcohol test as part of the application process for over half (56%) of the employees surveyed. The remaining 10% either did not know or did not recall being tested, indicating that perhaps the preemployment test was unimportant or inconsequential in their professional careers or they were not informed that their qualifying medical examination included drug and/or alcohol testing.

Sixty percent of the sensitive safety employees indicated they had not been tested for drug or alcohol use since their date of hire. Their current employer did test 18% of them for drug or alcohol use at least once, and 22% had been tested more than once. This combination of about 40% of the employees experiencing drug and alcohol tests is much higher than the 24% that were tested by previous employers. These increasing testing rates are consistent with the conclusion that substance abuse testing programs are on the rise.

Employees who were tested for specific reasons most often indicated that testing was a requirement for employment (22%), or part of a physical examination or other regularly scheduled medical examination (33%). Only 12% of the employees thought they were tested as part of a random selection process. This is slightly lower than the overall proportion (18%) of transit systems that reported conducting random testing in the transit agency survey.

Substance Abuse In The Workplace -- Several questions were asked regarding the direct experience and awareness that employees acquire as a result of discussions about or observation of substance abuse in the workplace. These questions were presented in terms of "difficulty doing a good job for this transit system." Alcohol use and drug use were addressed separately, and the results are summarized in Figure 16. Alcohol and drug use appear to differ slightly in employees' awareness levels of

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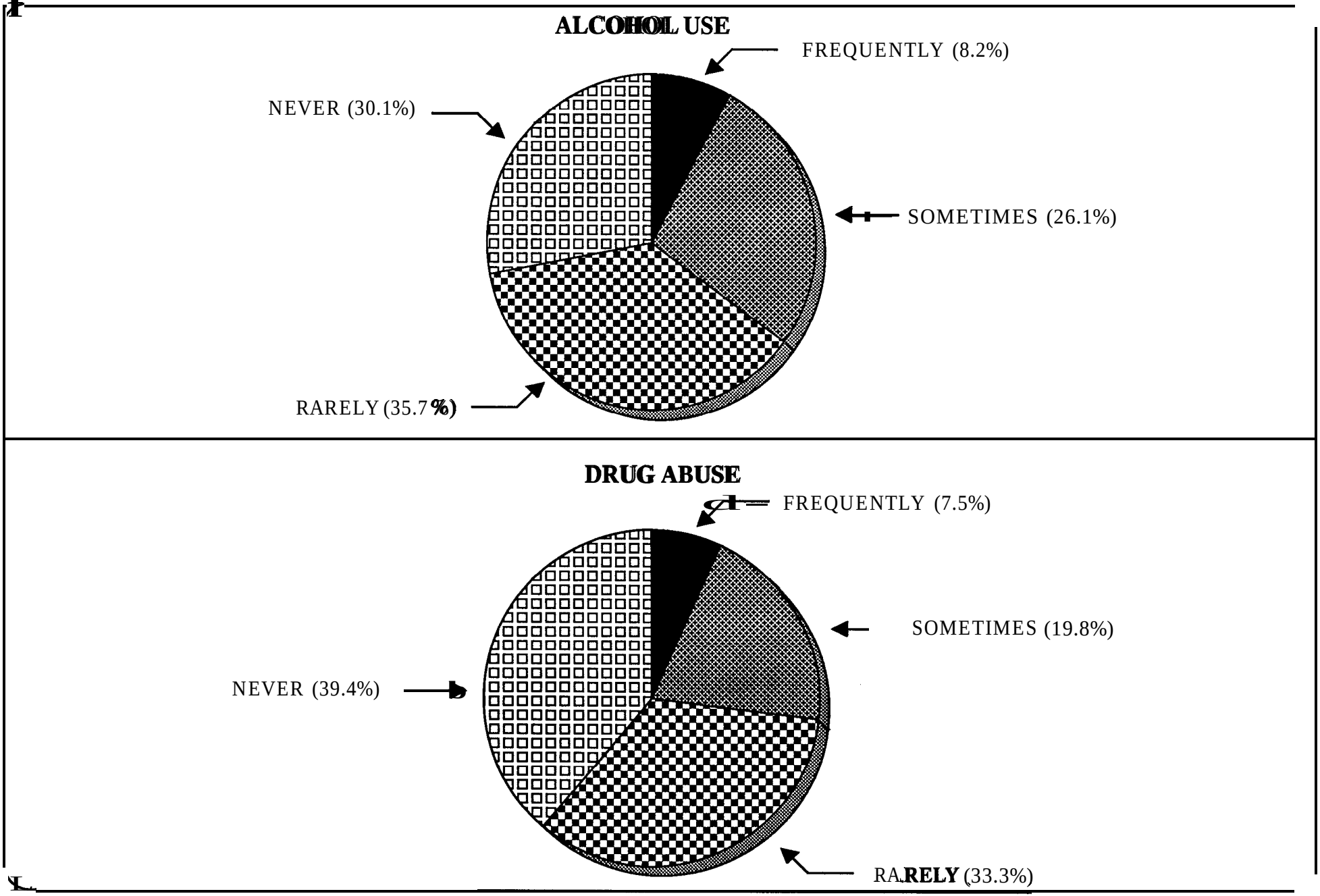
Figure 16
Employee Awareness Of Alcohol And Drug Abuse By Coworkers (Q. - 1.6 & 1.7)



SOURCE: Transit Employee Substance Abuse Survey

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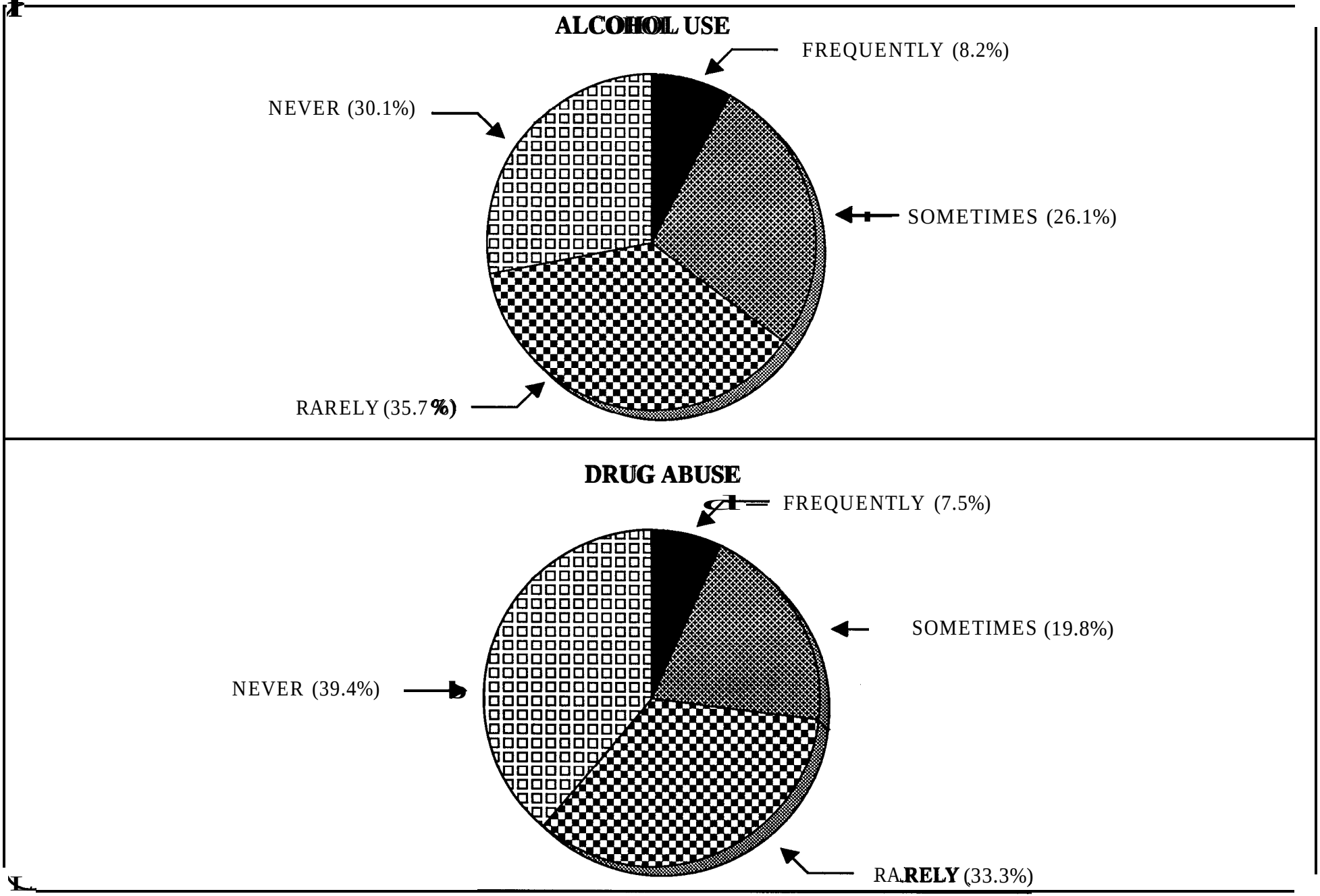

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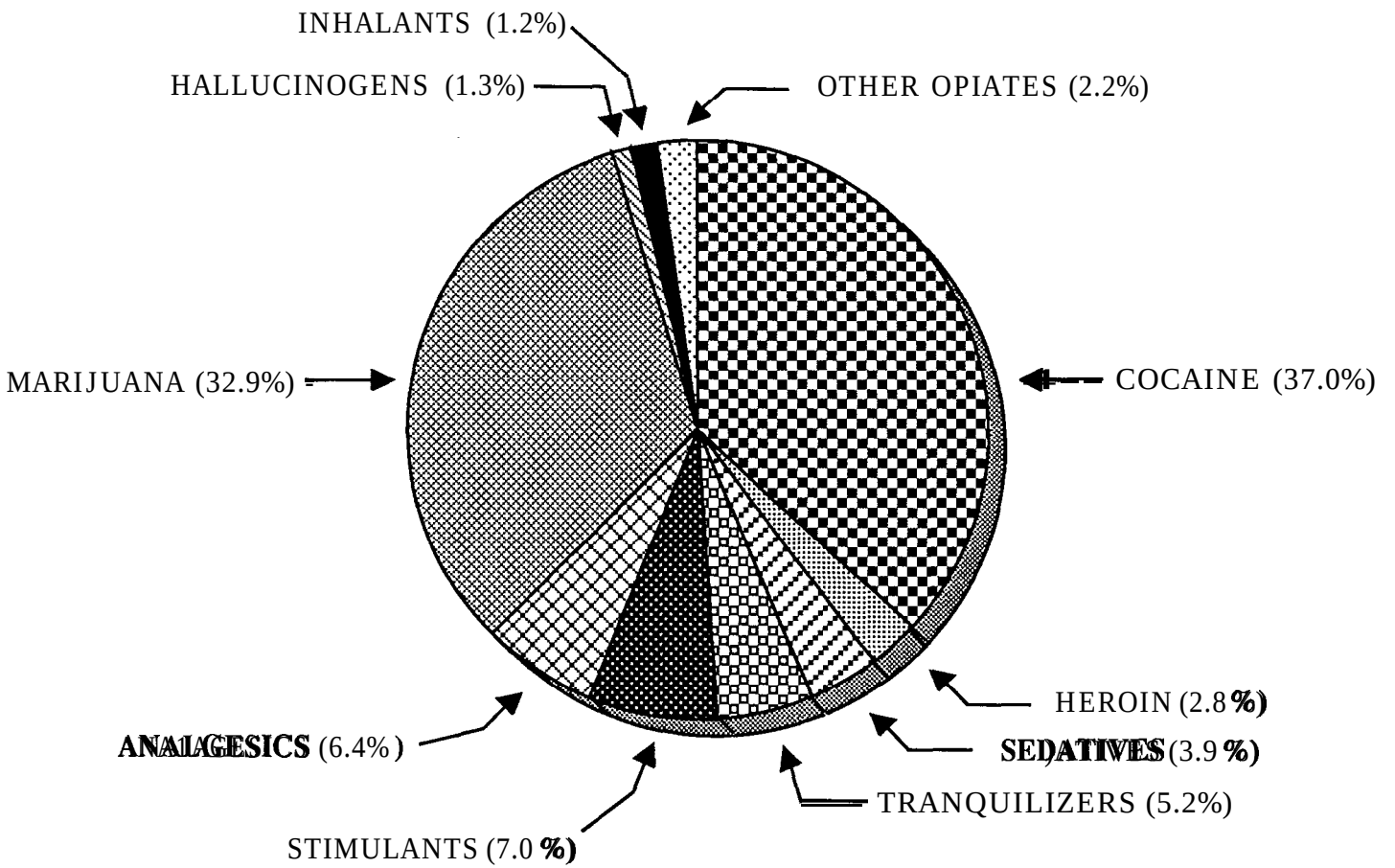
Figure 17
Employee Perception Of Drugs Most Widely Used (Q. - 1.8)



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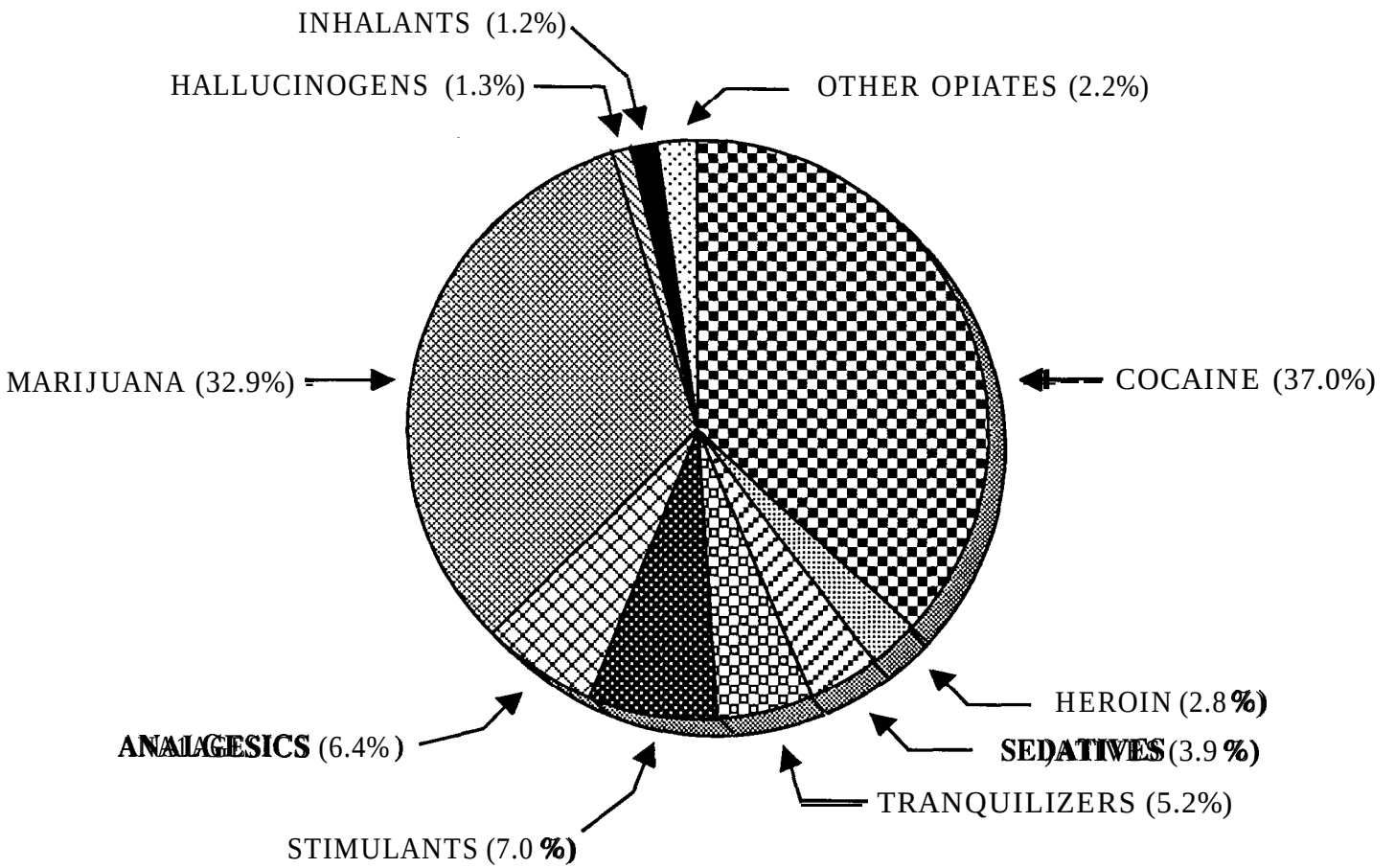

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these two drugs was greater than the self-reported levels of employee use. This greater awareness of coworker use compared to reported self-use suggests that the use of these drugs (cocaine and marijuana) may be more openly discussed and conducted than the other drugs and also suggests that it is easier to report coworkers' use than one's own use of drugs. Awareness of use of the other drugs was below self-reported usage levels, suggesting that usage is less obvious and less openly discussed, or that employees were unfamiliar with the less publicized illicit drugs. It should be noted that the perceptions of drug use are influenced both by the actual frequency of such use, and by the openness of its use.

Some inconsistencies in employee responses suggest that awareness of coworker use may be even higher than specifically reported. Some employees answered that they had no general knowledge of coworker difficulty with drug use but then identified a specific drug in the subsequent question. About one-sixth of those employees that reported never seeing coworker drug abuse subsequently identified a specific drug in the latter question. This may imply a difference in the definition of what is an illicit drug and the viewpoint that some of those drugs listed are not perceived as drugs of abuse by certain employees.

Employee Reaction To Coworker Drug And Alcohol Use -- The vast majority of transit employees are concerned enough about drug and alcohol use to contemplate some form of action when they encounter it in coworkers. The question of whether or not to get involved with employees who are having difficulty due to substance abuse was posed by the survey, and the results are illustrated in Figure 18. In general, over 90% of the employees who answered felt that they would intervene either directly or indirectly by reporting that person to a superior or would personally approach or keep an eye on that person. Over half (54%) of the transit sensitive safety employees stated that they would take direct action by reporting that person to a supervisor or union official. This indicates that most employees consider substance abuse to be a serious problem for which they have some significant concern and/or responsibility. Only ten percent would do nothing in this situation and allow the employee to continue his duties unquestioned or not monitored.

However, the intention to take action is not always followed by immediate response. Even though a significant majority intend to act, they may not follow through when confronted by the situation.

This employee reaction to coworker difficulty on the job due to either drugs or alcohol differs by type of employee. Figure 19 presents the reported intended reaction, by categories of employee type. A fairly consistent pattern of differences emerges between sensitive safety employees as compared to individuals in the supervisory and support positions.

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Figure 19
Reaction By Job Title To Coworker Experiencing Difficulty With Job Performance Due To Substance Abuse (Q. - 1.1& 1.9)

EMPLOYEE CATEGORY	REPORT TO SUPERVISOR	REPORT TO UNION OFFICIAL	PERSUADE NOT TO WORK	KEEP AN EYE OUT	DO NOTHING
OPERATOR	31.2%	20.7 %	29.3 %	8.4%	10.5 %
VEHICLE MAINTENANCE	31.6%	15.6 %	19.7 %	19.8 %	13.3%
NONVEHICLE MAINTENANCE	36.8 %	15.9 %	15.9 %	19.9 %	11.5%
SUPPORT / SUPERVISORY	65.0%	6.0%	23.7 %	3.8%	1.5%

SOURCE: Transit Employee Substance Abuse Survey

- A consistent one-third of the operators, vehicle mechanics and nonvehicle maintenance staff would report the employee to a supervisor, whereas a much higher proportion of the support/supervisory personnel would report the employee to a supervisor.

- A greater proportion of the operators and maintenance personnel would report the employee to a union official than support/supervisory.

- A high number of vehicle operators would personally attempt to prevent the coworker from working the shift.

- Vehicle and nonvehicle mechanics, who often work closely with the same employees on a daily basis, operate on a "buddy system" and would attempt to keep an eye on the fellow employee.

- Only a very small proportion of the support staff would do nothing, while a slightly higher proportion of sensitive safety personnel would do nothing.

The duties and responsibilities of some of the support staff make them more inclined to get involved in coworker difficulties. All of the sensitive safety personnel consistently demonstrated that this subject was not perceived to be solely a union issue; they would report the coworker to a union official only about half as often as they would go to a supervisor. These responses by employee category indicate a strong intention to become involved with coworker job performance difficulty. This strong expression of interest and potential involvement in coworkers' problems corresponds with the high levels of awareness of substance abuse.

SECTION II -- Personal Experiences With Alcohol

Employees were asked about their drinking habits with all types of alcoholic beverages, including beer, wine and liquor. This section questioned employees about the use of alcohol, frequency of drinking, volume of consumption, and their drinking experiences in relation to the workplace and duty time periods. The overall conclusion is that the "frequent drinking" problem is significant, but fairly small in proportion to all of the responses. The larger issue may be the less frequent, yet still "job performance affecting" alcohol consumption by more of the employees than those that reported frequent-drinking experiences. This level of alcohol abuse may be recognized by coworkers as a problem in job performance, but not necessarily directly or personally recognized as such by the employee. Only a very small proportion of employees reported alcohol consumption levels that significantly affect job performance. This group

of employees should be readily identifiable by well-trained supervisors and referred for reasonable cause tests.

Alcohol abuse to the point where it affects job performance was reported by only a small proportion of the sensitive safety employees. Drinking just before or during duty was reported by about six percent, which closely corresponds with the eight percent of employees that frequently see or hear of coworkers having difficulty with job performance because of alcohol use. Except for the frequent alcohol abuser, the main issue appears to be the less frequent alcohol use cited by coworkers, as noted by almost two-thirds of the employees and the 15% of employees who self-reported infrequent, but high-volume alcohol consumption.

The less frequent but duty-affecting use by coworkers does not correspond to the self-reported patterns of alcohol consumption. The interesting point is that most alcohol consumption was reported to occur at least five hours before duty. But, in those employees' perceptions, it did not affect the performance of their duty. However, these same employees reported that their coworkers' duty was sometimes affected by the same drinking patterns. This difference between employees personal drinking habits and their observations of their coworkers drinking habits may indicate confidence in their personal control, denial of a problem, or a shading of the truth in terms of their own experience.

Alcohol Consumption On Duty -- Drinking on duty is reported by a small proportion (2.7%) of all sensitive safety employees. Fewer than one percent stated that their on duty consumption of alcohol resulted in getting drunk. The survey also focused upon "on the job" drinking habits and,found that just over one percent (1.3%) of the sensitive safety employees sometimes drink alcohol on a meal or other break but, according to them, never to the point of affecting their performance of duty. An additional segment of the employees (1.4%) answered that they sometimes drink while on duty and over half of these sometimes get drunk during this time. Therefore, there appears to be at least a limited problem with alcohol use by on duty employees.

The majority of transit workers stated that they either never drink **(27%),** or do not drink as often as once a month (35%). The remaining 32% of the employees indicated that they only drink when off duty and not scheduled to be on duty for at least five hours. The total proportion of employees that reported duty-affecting drinking is fairly small at less than six percent **(5.8%),** but still an important finding. These transit employees felt that their consumption of alcohol seldom affected the performance of their duty. Only a very small proportion of responding employees reported that their drinking habits resulted in sometimes getting drunk. Slightly over half of these respondents (3%) said they drink when off duty and within five hours of going on duty. Whether these reported alcohol consumption patterns represent a safety issue cannot be determined here; however, the six percent of sensitive safety employees that drink on or just before their transit duty does represent an important issue for transit systems to consider in their substance abuse management programs.

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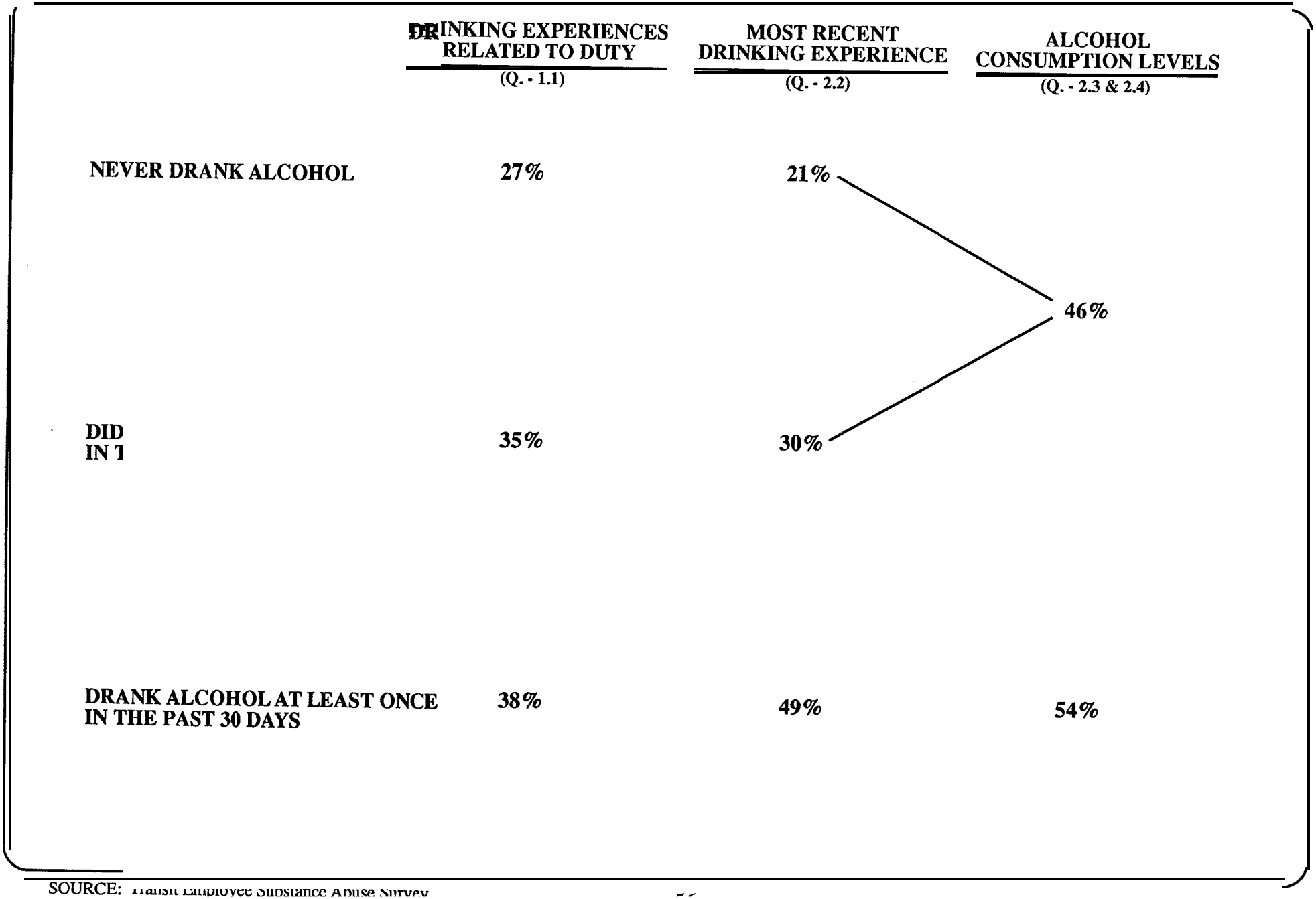
Figure 20
Self-Reported Alcohol Consumption Characteristics (Q. - 2.1, 2.2, 2.3, 2.4)



SOURCE: Transit Employee Substance Abuse Survey

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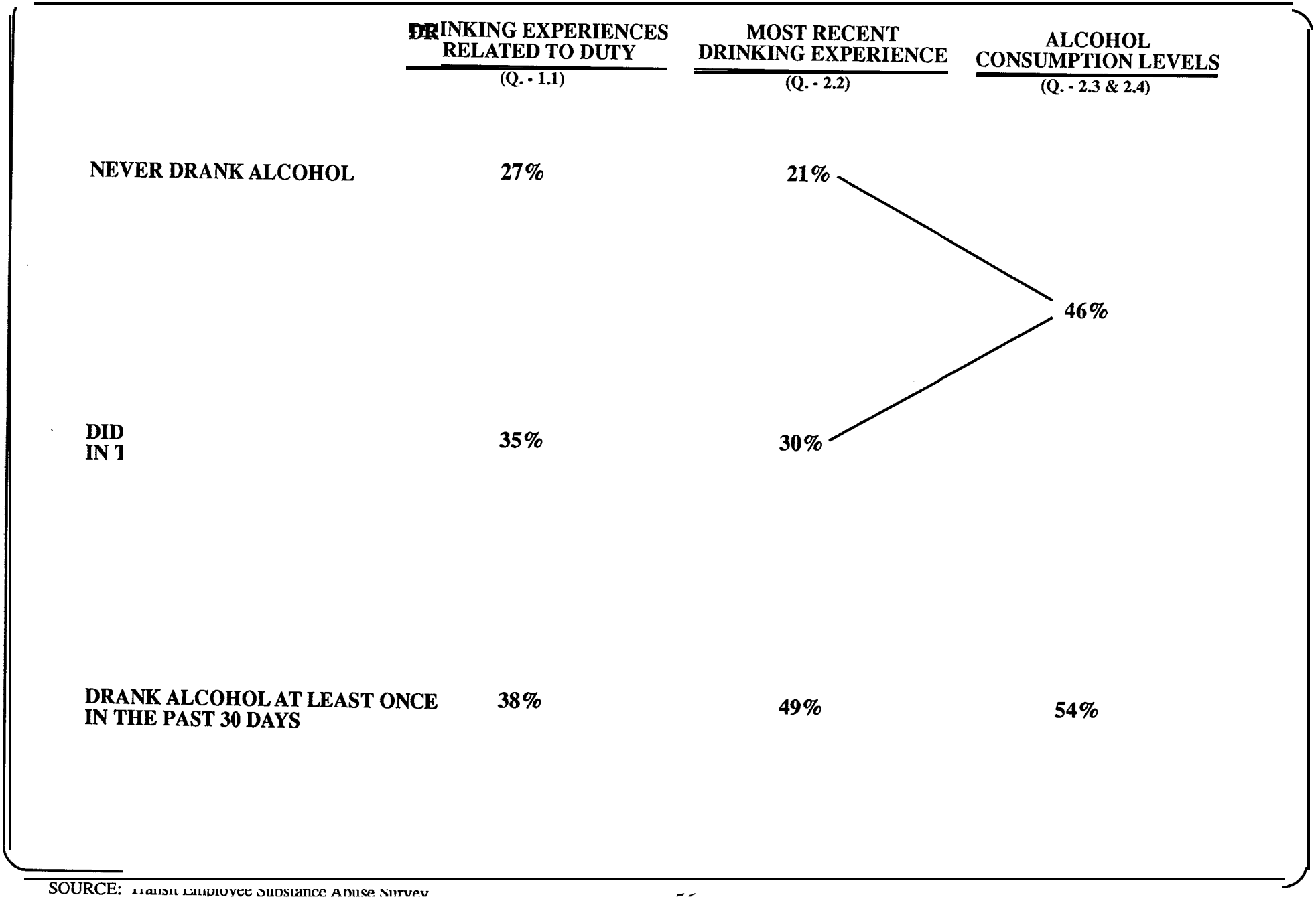

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Table 3 Number Of Drinks Consumed During Drinking Days

	1-2 Drinks	3-5 Drinks	6-10+ Drinks	Overall
More Than 5 Hrs. Before Duty	52.1%	33.9%	9.6%	32.2%
Less Than 5 Hrs. Before Duty	47.0%	28.4%	20.2%	3.1%
Sometimes On Duty	32.8%	20.8%	26.7%	2.7%
Overall Drinking Consumption	33.6%	14.9%	5.9%	

employees who reported drinking a high volume of drinks (the 5.9% that reported six to ten or more drinks each day), occasionally drank either on duty or just before duty. Most of the employees who reported drinking more than five hours before duty, reportedly consumed l-2 or 3-5 drinks each day. The employees who reported occasionally drinking less than five hours before duty were more evenly divided in the number of drinks they had each day.

SECTION III -- Personal Experiences With Drugs

This section of the employee survey concentrated on questions relating to drug use -- including prescription and illegal drugs. The questionnaire enumerated the types of drugs that were to be considered in response to each drug-related question. The drugs included prescription-type drugs such as pain killers, stimulants or "uppers," and sedatives or "downers." Other drugs included those produced mainly for illegal use or street drugs like marijuana, cocaine or crack, heroin, hallucinogens, inhalants and other opiates. These drugs were listed at the beginning of the drug section of the survey to provide a common context for the drug terminology used in the questions.

Based on data from a survey conducted in 1988 by the National Institute on Drug Abuse (NIDA) throughout the U.S., 37% of the general population has used some type of illicit drug at some time in their lives. In particular, over seven percent (7.3%) of the

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employees reported a level of drug use experience of 200 or more times in their life. This proportion of drug use is virtually the same as the duty-related drug use results of almost seven percent. An additional two and one-half percent reported lifetime drug use over 100 times. Also, 71% of the employees indicated that they had never used drugs for nonmedical reasons in their life, which is about ten percent lower than the 81% that reported no use to the first question.

When the very limited, lifetime drug use frequency scenarios (e.g., one or two times and three to five times) were offered as possible answers, a higher proportion of the employees reported previous drug use for nonmedical reasons. The 71% of transit employees who reported never using drugs in their lifetime is closer to the NIDA results (63%) for the general population and even closer to NIDA results for younger, male-oriented population segments that may be more representative of transit sensitive safety employees. About 13.5% of the employees reported experimental or infrequent use of drugs -- six percent used drugs one or two times, almost five percent used drugs three to five times, and three percent, six to ten times in their lives to get high or for any other nonmedical reasons. This 13.5% of employees reporting experimental or infrequent drug use is very close to the 10.5% difference in the proportion of employees reporting nonuse of drugs between the question (Q.1) related to use of drugs on or before duty and the following question on lifetime drug use (Q.2). The possibility exists that these employees considered a few experimental incidents of drug usage in their lives as negligible and therefore answered "never used drugs" when scenarios specific to their experiences were not provided.

The focus of the remaining drug questions was on more recent drug usage -- within the past 30 days. When asked when the most recent time such a drug was used, three percent of the employees indicated within the last 30 days. When including a longer time frame, the positive drug use matched the experience results of the comparable questions (six to over seven percent range). Overall, 74% of the of sensitive safety employees reported that they had never used drugs to this question of most recent drug use. The remaining 19% said that more than a year had passed since their prior drug use. This recent drug use response resulted in a generally consistent drug usage level in comparison to the results of the lifelong drug usage.

Drug use incidence levels were again fairly consistent when employees were asked about their drug use in the last 30 days. Employee self-reported drug use during the last 30 days reached just over six percent (6.2%). Half of these employees (3.2%) reported drug use during six to twenty or more days in the preceeding month. That rate of drug usage may exceed the typical number of off duty days each month and therefore could have had an impact on their performance of duty when drug use occurred during duty days. The remaining three percent of these recent drug users had a frequency between one and five days in the past month, which may represent recreational drug use on nonwork days.

Recent, self-reported drug use by the surveyed transit employees ranged between six and seven percent in these related drug use questions.

- 6.9% reported drug use before or during duty;
- 6.4% reported lifetime drug use of 200 or more times;
- 7.2% reported drug use over the past year; and,
- 6.2% reported drug use during the preceding 30 days.

This range of self-reported general drug use from six to over seven percent is within the rate of drug use reported in the NIDA survey of the general population (7.3%) for the previous month. However, the over ten percent self-reported drug use response provided by transit employees in the specific drug use question exceeds the general drug use estimates of the general population.

Specific Drug Usage -- The specific drug use question provided ten drug types from which to identify specific drug use on a daily or weekly basis. These responses resulted in an overall positive incident level of over ten percent (10.6%) using one of those drugs either daily or weekly within the past 30 days. The answers to these specific drug use questions indicate a relatively higher degree of drug usage among employees than the results of the more general drug usage questions. These results suggest that some employees may not consider certain substances in these categories as drugs and therefore do not consider using them as drug usage. The overall ten percent reported drug usage is over three percent higher than the comparable figure from the NIDA Household Survey – 7.3% drug use within the last 30 days. Four and one-half percent of the employees reported daily use, and a further six percent reported weekly use of the noted drug types. Also, a lower proportion of employees (89%) reported not using any of the listed drugs within the past 30 days. These results indicate a higher prevalence of drug use than reported in the initial drug questions, and are also closer to the more detailed NIDA results for the younger, more male-oriented profile of transit workers.

Figure 21 provides a breakdown of the individual frequencies of daily and weekly drug usage by drug type and overall incidence levels. As illustrated, cocaine, (1.2% daily and 1.6% weekly), and marijuana, (1.0% daily and 1.5% weekly), are the two drugs of highest reported use in the illegal substances category. Heroin has the third highest illicit drug use (0.5% daily use and 1.4% weekly). Analgesics (1.5% daily and 4.05% weekly) are the most widely used of the prescription type drugs, and sedatives (1.2% daily and 0.9% weekly) are the second most widely used.

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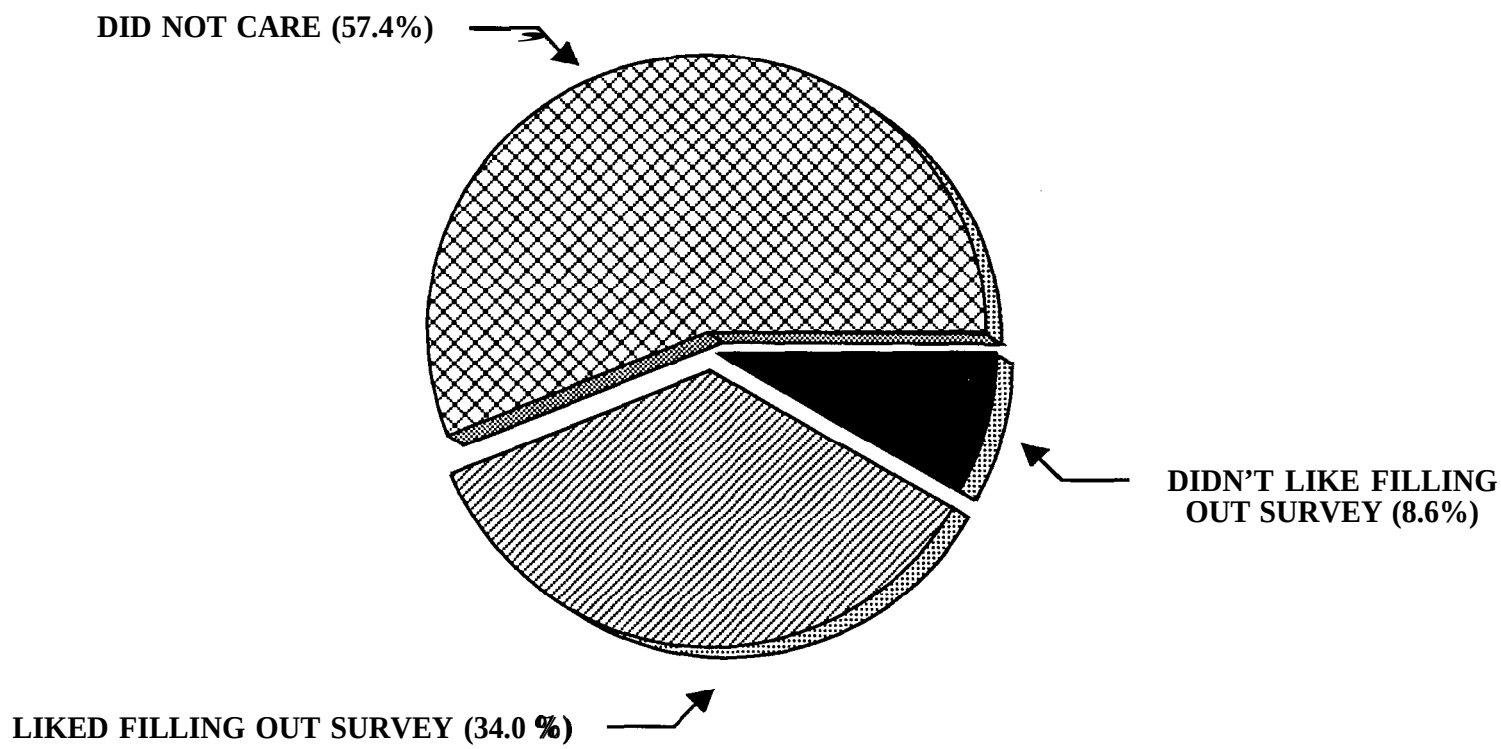
Figure 22
Employee Attitudes Toward Survey (Q. - 4.1)



SOURCE: Transit Employee Substance Abuse Survev

The quality of information from surveys depends upon the honesty and thought given to answering the questions. The employees were asked about their truthfulness in answering the questions (Figure 23). A very large majority, 92%, of the respondents

Table 4 Attitudinal Response To The Survey

	Liked Survey	Did Not Care	Did Not Like	Total
Always Truthful	95.1%	92.0%	85.8%	92.0%
Sometimes Shaded Truth	2.6%	6.4%	4.1%	5.0%
Sometimes Untruthful	1.1%	0.8%	0.5%	1.2%
Mostly Untruthful	1.2%	0.8%	9.6%	1.8%
Overall Total	34.0%	57.4%	8.6%	100.0%

indicated they had always answered the questions very truthfully. A total of 8% of the respondents reported not giving absolutely truthful answers by shading the truth, sometimes not telling the truth or mostly not telling the truth.

It would appear to be illogical to report the abuse of drugs and alcohol when individual experience has been to not use drugs or alcohol. If this is true, the 8% untruthful figure may be significant since these employees reported more drug and alcohol use than the truthful employees. Therefore it is possible that the frequency and abuse of drugs and alcohol may be slightly higher than the results would indicate.

Comparative Findings Of The Agency And Employee Surveys

Data from the two surveys converge to indicate similar substance abuse trends. Employee drug use has two particular subject areas where direct comparisons are available. The agency survey reported an overall positive drug-testing incidence of over

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four percent (4.3%) for sensitive safety employees. The employee survey resulted in a similar proportion (4.5%) of the employees reporting daily use and a further six percent reporting weekly use. The convergence occurs when the weekly recreational users are discounted because of their ability to achieve short-term abstinence and avoid detection by all but random and reasonable cause drug testing. In addition, some of the drugs listed in the specific use listing by employees are not tested for by some or all of the systems. When these two conditions are accounted (short-term abstinence and drugs not tested), the two survey results of employee drug use converge very closely.

Alcohol use can also be compared, but on a more generalized basis. The agency survey reported overall positive test results of two percent for alcohol abuse. This result can be compared with the self-reported on duty use of alcohol at almost three percent (2.7%) from the employee survey. In addition, before duty drinking was reported by another three percent of the employees. When drinking frequency is accounted for, these almost six percent of employees would test positive for alcohol about one-third of the time. This drinking frequency of about every third day would tend to converge the alcohol use data from both surveys, because the six percent of employees that reported drinking alcohol on or just before duty would then be closer to the two percent positive alcohol test results for a random day.

Considerations In Interpreting The Employee Survey Data

How far can the self-reporting of these transit employees be trusted? Ultimately, in the absence of objective observation data, it is impossible to determine the truthfulness of the responses. Since our data collection precluded any means of identifying individual respondents (no identifying information was collected), such observational confirmation was impossible.

Since the transit employee survey was designed to be comparable to the National Institute of Drug Abuse (NIDA) National Household Survey on Drug Abuse, it is appropriate to quote their caveat in this respect:'

> The value of self-reports obviously depends on the honesty and memory of sampled respondents. While some studies have established the validity of self-report data in similar contexts, and while the National Household

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have an employment profile, system size and geographic location that contribute to the completeness of the study findings. Generally, younger and more predominately male employee profiles should have a higher rate of drug use than the general population, according to the NIDA survey results. Characteristics of the outlier systems tend to substantiate the trend of greater drug use than the other systems. Another supporting explanation could be the impact of testing programs, since the systems with higher self-reported drug use have limited drug-testing programs. A combination of these two conditions, is likely, thereby affecting the underlying use of drugs and possibly explain the higher rates of drug use.

Table 5 Self-Reported Drug Usage With And Without The Outliers

	All Systems	Except 2 Outliers	Outlier A	Outlier B
Less Than Once A Month	11.7%	10.0%	6.0%	17.7%
More Than 5 Hrs. Before Duty	4.1%	3.0%	5.7%	6.4%
Less Than 5 Hrs. Before Duty	0.8%	0.6%	0.9%	1.2%
Sometimes On Duty	2.0%	1.3%	5.0%	2.8%
Overall Drug Usage	6.9%	4.9%	11.6%	10.4%

In the face of this information, we have elected to retain the outlying data in the report. However, we believe that it is important for the reader to understand the potential impact of the outlying data, and so we present here a table to highlight the drug use differences with and without the high-usage outlying systems. It may be prudent to treat the data with the outlier as a high-usage scenario and the data without the outlier as the high-likelihood scenario, and to assume that the existing substance abuse conditions among U.S. transit employees fall somewhere between the two.

The outlier information also demonstrates the unique drug use characteristics present in each system. Outlier A has a greater overall incidence of self-reported drug use and with a much greater propensity toward frequent drug use, including sometimes

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V. STUDY RESULTS

Overall Substance Abuse -- Key Findings

Survey findings demonstrate that the transit industry is affected by the same underlying substance abuse conditions as those present in modern society (Figure 24). Substance abuse by sensitive safety employees in the transit industry has contributed to a measurable proportion of reported major accidents and represents a recognized measure of risk to the public safety.

However, industry managers reported differing perceptions of the problem; over two-thirds of the transit systems surveyed do not believe their employees have a substance abuse problem. But, there are clear indications from both survey results that the transit industry has been affected by the same substance abuse problems as those found in the general population -- drug use in transit was reported only slightly lower and alcohol use similarly slightly lower, compared to the NIDA National Household Survey on Drug Abuse.

Overall Substance Abuse

- About eighteen percent of the responding systems reported major accidents in 1990 and in ten percent of those accidents, employee substance abuse was identified as at least a contributing factor.

- Two-thirds of the transit agencies indicated that they believe that they have no substance abuse problem, even though a third of these systems reported at least one major accident with substance abuse as a contributing factor.

- Most of the systems reporting major accidents with substance abuse as a contributing cause had only a small number of such accidents, which may indicate that those systems believe the accidents to be an isolated incident rather than a symptom of a more pervasive problem.

- Almost 40% of all transit systems do not have a substance abuse testing program or do not test after an accident to determine whether there is a problem; therefore, the actual number and proportion of substance abuse related major accidents may likely be higher -- the number is not known.

V. STUDY RESULTS

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- Almost 40% of all transit systems do not have a substance abuse testing program or do not test after an accident to determine whether there is a problem; therefore, the actual number and proportion of substance abuse related major accidents may likely be higher -- the number is not known.

High frequency: 8.0% of employees drink 16 or more days each month.

- Another 15% of sensitive safety employees reported less frequent alcohol consumption, but still fairly high-volume consumption within five hours of reporting for work.

- About two percent of all alcohol tests reported in the agency survey were confirmed positive for sensitive safety employees.

These findings demonstrate that there is a substance abuse problem in the transit industry and that it has been unable to avoid the substance problems prevalent in the general population. The results do indicate that drug testing may have a deterrent effect on drug use because it is reported lower by transit employees than by the general population. This is unexpected given the industry's demographics of a more young, urban, male-oriented employee profile than the general population.

Safety Implications

The transit agency survey results indicate that there is a small but measurable safety problem associated with substance abuse. Information was requested about major accidents and those with substance abuse as a contributing factor. However, only 50% of the transit agency survey respondents could provide data on major accidents. Eighteen percent of the respondents who were able to provide information on major accidents reported at least one accident with substance abuse as a contributing factor during calendar. However limited the data, a substance abuse-related major accident rate of 10% indicates a substance abuse-related safety implication.

Almost all systems which reported a substance abuse-related accident conduct both preemployment and reasonable cause testing, and have an above-average likelihood of testing under most other circumstances. However, a large proportion, almost 40%, of the responding transit agencies do not test for the possibility that an accident may be drug or alcohol related:

- 22.2% of the responding agencies have no drug and alcohol testing program;

- Of those systems that do have testing programs, 6.5% do not conduct postaccident testing; and,

- Of those systems that do conduct some type of testing, 9.8% do not conduct accident-related reasonable cause testing.

Therefore, while the limited information available does not support an overall industry-wide projection, the point that almost 40% of the transit systems do not know the extent of the impact of substance abuse on their operations does highlight a potential system safety weakness.

Program Content

Existing drug and alcohol testing may have a deterrent effect on the reported substance abuse rates by sensitive safety transit employees. This inhibiting effect was identified through the transit employee survey, which indicates that transit systems with testing programs have lower employee reported drug and alcohol use. This was also supported by numerous discussions with employees at many of the survey locations. The agency survey results were unable to confirm or deny this conclusion since the systems without testing are unaware of the extent of their employees' substance abuse problem.

Abuse of alcohol to the extent that it affects job performance was identified as an important issue and one relevant for implementation of any substance abuse program. The agency survey results reported alcohol abuse as the most prevalent substance in each organization. Alcohol use at levels that affect job performance was identified fairly often by coworkers in the employee survey. Self-reported alcohol use was above the levels found in the general population and also reported at high levels before and during duty assignments. Therefore, alcohol should be considered as an important part of any substance abuse program.

Abuse of drugs was also found at levels that affect job performance. The five illegal drugs noted in the Federal DHHS guidelines (cocaine, marijuana, opiates, amphetamines and phencyclidine) were all identified at measurable levels for self-reported use and knowledge of duty-affecting coworker use. In addition, some abuse of prescription drugs and related street versions was reported at levels that could be affecting job performance. Many of these drugs are included in some of the more sophisticated and mature substance testing programs already in place in the transit industry. Inclusion of at least the five illegal drugs noted in the DHHS guidelines should be a minimum, and addition of some of the prescription drugs should also be seriously considered.

- Of those systems that do conduct some type of testing, 9.8% do not conduct accident-related reasonable cause testing.

Therefore, while the limited information available does not support an overall industry-wide projection, the point that almost 40% of the transit systems do not know the extent of the impact of substance abuse on their operations does highlight a potential system safety weakness.

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Job applicants are refused employment at most systems (77%), but are reconsidered at many (43%) of the largest.

- Availability of Employee Assistance Programs is fairly extensive in the responding systems.

  Employee Assistance Programs (EAPs) are available at 88% of the systems that conduct drug testing.

  EAP services are available at 69% of these systems to the employee who tests positive as compared to the 24% of systems that offer EAP services only to employees that volunteer before testing positive.

- The types of drugs included in most testing programs usually comprise the five identified by the Federal programs (cocaine, marijuana, opiates, amphetamines, and phencyclidine or PCP), plus some key additional drugs that are also present in the workplace. The employee survey results identified some prescription drug use, such as analgesics, sedatives, tranquilizers and stimulants, that may result in diminished capacity to perform a sensitive safety position. These prescription drugs could be considered for inclusion in any testing program.

These six major points highlight several key aspects that were identified through this study as important to a substance abuse program. There are some additional points from the study that should also be considered.

Availability of a comprehensive Employee Assistance Program (EAP) was a concern to many employees. Even though a significant majority of transit systems offer some type of EAP, the scope of EAP services varies a great deal. EAPs range from referral to external, publicly available programs, to many types of rehabilitation programs that provide treatment as well as maintenance when the employees return to work. The agency concern is the significant cost added at each level of service provided and the fairly low (less than 50%) long term individual success rate. Alternative concerns include the high initial cost to recruit and train new employees as well as termination expenses associated with dismissal of long term employees. The trade-offs and EAP effectiveness questions are issues that extend beyond the purview of this study. But the importance drawn by employees to EAP treatment and rehabilitation services is to be noted.

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APPENDICIES

Appendix A - Transit Agency Survey Questionnaire and Results

Appendix B - Transit Employee Survey Questionnaire and Results

Appendix C - Transit Industry Database

Appendix D - Details Of The Employee Survey Sampling Plan

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Appendix A - Transit Agency Survey Questionnaire and Results

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Appendix D - Details Of The Employee Survey Sampling Plan

Please circle the appropriate code or codes to answer each of the following questions

1. Do you believe that you have a substance abuse problem in your organization?

Yes 1
No 2

1a. IF YES: Please rank the substances that you believe are abused most in your organization, using 1 for the most prevalent, and 3 for the least prevalent:

Illegal drugs _____
Alcohol _____
Prescription drugs _____

2. What UMTA funding do you receive?

Section 3 funding 1
Section 9 funding 2
Section 16(b)(2) funding 3
Section 18 funding 4
No UMTA funding 5
Other UMTA funding (Please specify) 6

_____

3. Do you currently have a written policy on substance abuse in the workplace?

Yes 1
No 2

4. Do you currently have a drug testing program in effect for your work force?

Yes (Continue with the following questions) 1

No (Please skip to questions in the boxed section starting with Question 13) 2

FOR TRANSIT SYSTEMS WITH A DRUG TESTING PROGRAM

5. When did you start your program?

Month:_____ Year:

Please circle the appropriate code or codes to answer each of the following questions

1. Do you believe that you have a substance abuse problem in your organization?

Yes 1
No 2

1a. IF YES: Please rank the substances that you believe are abused most in your organization, using 1 for the most prevalent, and 3 for the least prevalent:

Illegal drugs _____
Alcohol _____
Prescription drugs _____

2. What UMTA funding do you receive?

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Yes 1
No 2

4. Do you currently have a drug testing program in effect for your work force?

Yes (Continue with the following questions) 1

No (Please skip to questions in the boxed section starting with Question 13) 2

FOR TRANSIT SYSTEMS WITH A DRUG TESTING PROGRAM

5. When did you start your program?

Month:_____ Year:

9a. (IF "YES" TO RANDOM DRUG TESTING) For each of the following, please indicate whether it is true or not true of your system's random drug testing program?

	Not True	True
a. Employees selected for testing are told only after reporting to work the day of the test	1	2
b. Tests are given without regard to previous selection for testing, behavior or accident involvement	1	2
c. Testing is pretty evenly distributed across the entire year, across days of the week, and across all work shifts (circle *true* only if *all three* conditions apply)	1	2
d. All employees are included in the random testing pool	1	2
e. Only safety-sensitive employees are included in the random testing pool	1	2
f. Random testing is conducted at a fixed ratio of tests to employees	1	2

(IF TRUE:) At what rate do you test? _____%

9b. (IF YES TO REASONABLE CAUSE DRUG TESTING) Which of the following statements best characterizes your reasonable cause testing procedures?

Most reasonable cause tests are triggered by accidents, whether major or minor	1
Many but not most reasonable cause tests are triggered by accidents	2
Very few reasonable cause tests are triggered by accidents	3

10. Do you use a licensed physician as a Medical Review Officer (MRO) to verify laboratory-confirmed positive test results?

Yes	1
No	2

9a. (IF "YES" TO RANDOM DRUG TESTING) For each of the following, please indicate whether it is true or not true of your system's random drug testing program?

	Not True	True
a. Employees selected for testing are told only after reporting to work the day of the test	1	2
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10. Do you use a licensed physician as a Medical Review Officer (MRO) to verify laboratory-confirmed positive test results?

Yes	1
No	2

14. Which of the following best describes your company's plans for drug testing?

Will start in next 6 months	1
Will start in next 6 to 12 months	2
Will start in next 12 to 24 months	3
Will start, but no time frame set	4
Considering, decision not final	5
Will not start one	6

14a. IF YOU WILL NOT START ONE: Which of the following reasons apply to your decision not to set up a drug testing program? (circle as many as apply)

Conflicting state or local laws	1
No evidence of a problem	2
Anticipated legal challenges	3
Anticipated union resistance or litigation	4
Anticipated employee resistance or litigation	5
Costs involved are too high	6
Can control substance abuse without a testing program	7
Other (Please specify below)	8

_____

15. Do you currently have an alcohol testing program in effect for your work force?

Yes	(Continue with the following questions)	1
No	(Please skip to questions in the boxed section starting with Question 25)	2

FOR TRANSIT SYSTEMS WITH AN ALCOHOL TESTING PROGRAM

16. When did you start your program?

Month:_____ Year:_____

17. For each of the following alcohol test methods, please indicate whether it is used routinely, used in special cases, or not used at all as far as you know:

	Routine	Special	Not Used
Urinalysis	1	2	3
Breathalyzer	1	2	3
Blood analysis	1	2	3
Other (Please specify below)	1	2	3

_____

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Other (Please specify below)	1	2	3

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21a. (IF "YES" TO RANDOM ALCOHOL TESTING) For each of the following, please indicate whether it is true or not true of your system's random alcohol testing program?

	Not True	True
a. Employees selected for testing are told only after reporting to work the day of the test	1	2
b. Tests are given without regard to previous selection for testing, behavior or accident involvement	1	2
c. Testing is pretty evenly distributed across the entire year, across days of the week, and across all work shifts (circle *true* only if *all three* conditions apply)	1	2
d. All employees are included in the random testing pool	1	2
e. Only safety-sensitive employees are included in the random testing pool	1	2
f. Random testing is conducted at a fixed ratio of tests to employees	1	2

(IF TRUE:) At what rate do you test? _____%

21b. (IF YES TO REASONABLE CAUSE ALCOHOL TESTING) Which of the following statements best characterizes your reasonable cause testing procedures?

Most reasonable cause tests are triggered by accidents, whether major or minor	1
Many but not most reasonable cause tests are triggered by accidents	2
Very few reasonable cause tests are triggered by accidents	3

22. Do you use a licensed physician as a Medical Review Officer (MRO) to verify laboratory-confirmed positive test results?

Yes	1
No	2

21a. (IF "YES" TO RANDOM ALCOHOL TESTING) For each of the following, please indicate whether it is true or not true of your system's random alcohol testing program?

	Not True	True
a. Employees selected for testing are told only after reporting to work the day of the test	1	2
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Very few reasonable cause tests are triggered by accidents	3

22. Do you use a licensed physician as a Medical Review Officer (MRO) to verify laboratory-confirmed positive test results?

Yes	1
No	2

FOR TRANSIT SYSTEMS WITHOUT AN ALCOHOL TESTING PROGRAM

25. Has this transit system ever had an alcohol testing program?

Yes	1
No	2

25a. IF YES: When was that program in effect?

From _____, 19__ to _____, 19__

26. Which of the following best describes your company's plans for alcohol testing?

Will start in next 6 months	1
Will start in next 6 to 12 months	2
Will start in next 12 to 24 months	3
Will start, but no time frame set	4
Considering, decision not final	5
Will not start one	6

26a. IF YOU WILL NOT START ONE: Which of the following reasons apply to your decision not to set up an alcohol testing program? (circle as many as apply)

Conflicting state or local laws	1
No evidence of a problem	2
Anticipated legal challenges	3
Anticipated union resistance or litigation	4
Anticipated employee resistance or litigation not involving union	5
Costs involved are too high	6
Can control substance abuse without a testing program	7
Other (Please specify below)	8

_____

PLEASE CONTINUE WITH THE REMAINDER OF THE QUESTIONNAIRE; IF YOUR SYSTEM DOES *NO* DRUG OR ALCOHOL TESTING AT ALL, PLEASE SKIP TO QUESTION 33.

FOR TRANSIT SYSTEMS WITHOUT AN ALCOHOL TESTING PROGRAM

25. Has this transit system ever had an alcohol testing program?

Yes	1
No	2

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26. Which of the following best describes your company's plans for alcohol testing?

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Anticipated employee resistance or litigation not involving union	5
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28. Which of the following best describes your policy concerning job applicants who test positive for drugs and/or alcohol?

Refuse to consider for employment	1
Permit applicant to reapply and take another test 30-60 days after initial test	2
Permit applicant to reapply and take another test 61 or more days after initial test	3
Will consider hiring for non safety- or security-sensitive position	4

29. Do you offer rehabilitation or treatment services to employees...

	Yes	No
after they test positive?	1	2
who volunteer before they test positive?	1	2

30. Do you terminate employees after they test positive...

	Yes	No
the first time?	1	2
the second time?	1	2
more than twice?	1	2

REGARDLESS OF YOUR TEST POLICY OR PROCEDURES, PLEASE ANSWER THE FOLLOWING FEW QUESTIONS

31. Do you have an Employee Assistance Program (EAP) available to your work force?

Yes	1
No	2

32. Do you provide any substance abuse training for your employees?

Yes	1
No	2

33. How many accidents did your transit system have in calendar 1990 involving revenue service vehicles along with injury or death, or property damage in excess of $5,000?

_____ accidents

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_____ accidents

TRANSIT AGENCY SUBSTANCE ABUSE SURVEY ON ALCOHOL AND DRUG ABUSE

OVERALL FREQUENCY RESULTS

a.) How many employees do you have in total?

Employees	FREQUENCY	PERCENT
1-25	40	13.07%
26-40	46	15.03%
41-50	24	7.84%
51-100	58	18.95%
101-200	59	19.28%
201-300	13	4.25%
301-500	16	5.23%
501-1,000	20	6.54%
1,001-1,500	7	2.29%
1,501-2,000	4	1.31%
2,001-3,000	6	1.96%
3,001-More	13	4.25%
	306	100.00%

b.) How many are in each of the following categories?

	FREQUENCY	PERCENT
Vehicle Operators	86,133	62.89%
Vehicle Maintainers	23,042	16.83%
Signal Maintainers	3,999	2.92%
Power Distribution Maintainers	1,769	1.29%
Other Equipment Maintainers	2,800	2.04%
Inspectors	1,521	1.11%
Towermen/Switchmen	187	0.14%
Police or Security Officers	6,659	4.86%
Dispatchers/Controllers	3,351	2.45%
First Line Supervisors of the above	7,488	5.47%
	136,949	100.00%

1.) Do you believe that you have a substance abuse problem in your organization?

	FREQUENCY	PERCENT
Yes	99	32.46%
No	206	67.54%
	305	100.00%

TRANSIT AGENCY SUBSTANCE ABUSE SURVEY ON ALCOHOL AND DRUG ABUSE

OVERALL FREQUENCY RESULTS

a.) How many employees do you have in total?

Employees	FREQUENCY	PERCENT
l-25	40	13.07%
26-40	46	15.03%
41-50	24	7.84%
51-100	58	18.95%
101-200	59	19.28%
201-300	13	4.25%
301-500	16	5.23%
501-1,000	20	6.54%
1,000-1,500	7	2.29%
1,501-2,000	4	1.31%
2,001-3,000	6	1.96%
3,001-More	13	4.25%
	306	100.00%

b.) How many are in each of the following categories?

	FREQUENCY	PERCENT
Vehicle Operators	86,133	62.89%
Vehicle Maintainers	23,042	16.83%
Signal Maintainers	3,999	2.92%
Power Distribution Maintainers	1,769	1.29%
Other Equipment Maintainers	2,800	2.04%
Inspectors	1,521	1.11%
Towermen/Switchmen	187	0.14%
Police or Security Officers	6,659	4.86%
Dispatchers/Controllers	3,351	2.45%
First Line Supervisors of the above	7,488	5.47%
	136,949	100.00%

1.) Do you believe that you have a substance abuse problem in your organization?

	FREQUENCY	PERCENT
Yes	99	32.46%
No	206	67.54%
	305	100.00%

FOR TRANSIT SYSTEMS WITH A DRUG TESTING PROGRAM

5.) When did you start your program?

Date	FREQUENCY	PERCENT
Less than 1 year	42	19.27%
1.01 years to 2 years	74	33.94%
2.01 years to 3 years	31	14.22%
More than 3 years	71	32.57%
	218	100.00%

6.) Do you test for:

	Yes		*No*	
	Frequency	Percent	Frequency	Percent
Marijuana?	237	99.57%	1	0.43%
Opiates?	234	98.32%	4	16.8%
Amphetamines?	234	98.32%	4	16.8%
Cocaine?	237	99.57%	1	0.43%
Phencyclidine (PCP)?	230	96.64%	8	3.36%
Barbiturates?	168	70.58%	70	29.42%
Benzodiazepines?	153	64.29%	85	35.71%
Other?	47	19.75%	191	80.25%

7.) For each of the following urinalysis drug test methods, please indicate whether it is used ***routinely, used in special cases,*** or ***not used at all*** as far as you know:

	Frequency				
	Routine	Special	Not Used	Don't Know	
EMIT (Enzyme Multiplied Immunoassay Technique)	168	5	31	11	= 215
TLC (Thin-layer Chromatography)	16	16	170	13	= 215
GLC (Gas-liquid Chromatography)	11	14	176	12	= 213
GC/MS (Gas Chromatography/ Mass Spectrometry)	100	86	17	11	= 214
Other	8	5	190	12	= 215

	Percent				
	Routine	Special	Not Used	Don't Know	
EMIT (Enzyme Multiplied Immunoassay Technique)	78.14%	2.32%	14.41%	5.12%	= 100.00%
TLC (Thin-layer Chromatography)	7.44%	7.44%	79.07%	6.03%	= 100.00%
GLC (Gas-liquid Chromatography)	5.16%	6.57%	82.63%	5.63%	= 100.00%
GC/MS (Gas Chromatography/ Mass Spectrometry)	46.73%	40.19%	7.94%	5.14%	= 100.00%
Other	3.72%	2.33%	88.37%	5.58%	= 100.00%

8.) If you use urinalysis for drug testing, how often do you confirm initial (screen) positive drug test results?

	FREQUENCY	PERCENT
Always	208	92.85%
Never	10	4.46%
Sometimes	5	2.23%
Don't Know	1	0.45%
	224	100.00%

9.) Do you conduct:

	Yes		No	
	Frequency	Percent	Frequency	Percent
Preemployment drug testing?	228	95.80%	10	4.20%
Postaccident drug testing?	175	73.53%	63	26.47%
Reasonable cause drug testing?	214	89.92%	24	10.08%
Return-to-duty drug testing?	152	64.14%	85	35.86%
Periodic drug testing in conjuction with scheduled medical examinations?	125	52.52%	113	47.48%
Random drug testing?	42	17.65%	196	82.35%

9a.) (IF "YES" TO RANDOM DRUG TESTING) For each of the folowing, please indicate whether it is true or not true of your system's random drug testing program?

	Not True		True	
	Frequency	Percent	Frequency	Percent
a. Employees selected for testing are told only after reporting to work the day of the test	2	5.56%	34	94.44%
b. Tests are given without regard to previous selection for testing, behavior or accident involvement	3	8.33%	33	91.67%
c. Testing is pretty evenly distributed across the entire year, across days of the week, and across all work shifts (circle *true* only if all three conditions apply)	3	9.09%	30	90.91%

8.) If you use urinalysis for drug testing, how often do you confirm initial (screen) positive drug test results?

	FREQUENCY	PERCENT
Always	208	92.85%
Never	10	4.46%
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Don't Know	1	0.45%
	224	100.00%

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	Frequency	Percent	Frequency	Percent
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c. Testing is pretty evenly distributed across the entire year, across days of the week, and across all work shifts (circle *true* only if all three conditions apply)	3	9.09%	30	90.91%

11. About how many ***drug*** tests did you do in calendar year 1990 and what results did you encounter by job catetory?

	Frequency			
	No. of Samples Submitted	Laboratory Confirmed Positive	MRO Verified	Positive Rate
Vehicle Operators	30,574	1,102	1,007	3.29%
Vehicle Maintainers	3,881	132	116	2.99%
Signal Maintainers	665	21	21	3.16%
Power Distribution Maintainers	228	8	7	3.07%
Other Equipment Maintainers	1,924	87	87	4.52%
Inspectors	484	24	23	4.75%
Towermen/Switchmen	388	12	11	2.84%
Policy or Security Officers	822	23	20	2.43%
Dispatchers/Controllers	303	15	15	4.95%
Other job categories	5,437	663	657	12.08%
First Line Supervisors of above	1,732	43	41	2.37%
TOTAL	46,438	2,130	2,005	4.32%

About how many ***drug*** tests did you do in calendar year 1990 and what results did you encounter by job catetory?

	Percent		
	No. of Samples Submitted	Laboratory Confirmed Positive	MRO Verified
Vehicle Operators	65.84%	51.74%	50.22%
Vehicle Maintainers	8.36%	6.20%	5.79%
Signal Maintainers	1.43%	.99%	1.05%
Power Distribution Maintainers	.49%	.38%	.35%
Other Equipment Maintainers	4.14%	4.08%	4.34%
Inspectors	1.04%	1.13%	1.15%
Towermen/Switchmen	.84%	.56%	.55%
Policy or Security Officers	1.77%	1.08%	.99%
Dispatchers/Controllers	.65%	.70%	.75%
Other job categories	11.71%	31.13%	32.77%
First Line Supervisors of above	3.73%	2.02%	2.04%
TOTAL	100.00%	100.00%	100.00%

11. About how many ***drug*** tests did you do in calendar year 1990 and what results did you encounter by job catetory?

	Frequency			
	No. of Samples Submitted	Laboratory Confirmed Positive	MRO Verified	Positive Rate
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TOTAL	46,438	2,130	2,005	4.32%

About how many ***drug*** tests did you do in calendar year 1990 and what results did you encounter by job catetory?

	Percent		
	No. of Samples Submitted	Laboratory Confirmed Positive	MRO Verified
Vehicle Operators	65.84%	51.74%	50.22%
Vehicle Maintainers	8.36%	6.20%	5.79%
Signal Maintainers	1.43%	.99%	1.05%
Power Distribution Maintainers	.49%	.38%	.35%
Other Equipment Maintainers	4.14%	4.08%	4.34%
Inspectors	1.04%	1.13%	1.15%
Towermen/Switchmen	.84%	.56%	.55%
Policy or Security Officers	1.77%	1.08%	.99%
Dispatchers/Controllers	.65%	.70%	.75%
Other job categories	11.71%	31.13%	32.77%
First Line Supervisors of above	3.73%	2.02%	2.04%
TOTAL	100.00%	100.00%	100.00%

14.) Which of the following best describes your company's plans for drug testing

	FREQUENCY	PERCENT
Will start in next 6 months	5	7.46%
Will start in next 6 to 12 months	6	8.96%
Will start in next 12 to 24 months	3	4.48%
Will start, but no time frame set	18	26.87%
Considering, decision not final	26	38.81%
Will not start one	9	13.43%
	67	100.00%

14a.) IF YOU WILL NOT START ONE: Which of the following reasons apply to your decision not to set up a drug testing program?

	FREQUENCY	PERCENT
Conflicing state or local laws	3	13.64%
No evidence of a problem	4	18.18%
Anticipated legal challenges	2	9.09%
Anticipated union resistance or litigation	2	9.09%
Anticipated employee resistance or litigation not involving union	1	4.55%
Costs involved are too high	3	13.64%
Can control substance abuse without a testing program	3	13.64%
Other (Please specify below)	4	18.18%
NOTE: Multiple responses were appropriate to this question	22	100.00%

15.) Do you currently have an alcohol program in effect for your work force?

		FREQUENCY	PERCENT
Yes	(Continue with the following questions)	177	57.84%
No	(Please skip to questions in the boxed section starting with Question 25)	129	42.16%
		306	100.00%

16.) When did you start your program?

DATE	FREQUENCY	PERCENT
Less than 1 year	21	13.29%
1 year	2	1.27%
1.01 years to 2 years	50	31.65%
2.01 years to 3 years	23	14.56%
More than 3 years	62	39.24%
	158	100.00%

14.) Which of the following best describes your company's plans for drug testing

	FREQUENCY	PERCENT
Will start in next 6 months	5	7.46%
Will start in next 6 to 12 months	6	8.96%
Will start in next 12 to 24 months	3	4.48%
Will start, but no time frame set	18	26.87%
Considering, decision not final	26	38.81%
Will not start one	9	13.43%
	67	100.00%

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Anticipated legal challenges	2	9.09%
Anticipated union resistance or litigation	2	9.09%
Anticipated employee resistance or litigation not involving union	1	4.55%
Costs involved are too high	3	13.64%
Can control substance abuse without a testing program	3	13.64%
Other (Please specify below)	4	18.18%
NOTE: Multiple responses were appropriate to this question	22	100.00%

15.) Do you currently have an alcohol program in effect for your work force?

		FREQUENCY	PERCENT
Yes	(Continue with the following questions)	177	57.84%
No	(Please skip to questions in the boxed section starting with Question 25)	129	42.16%
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16.) When did you start your program?

DATE	FREQUENCY	PERCENT
Less than 1 year	21	13.29%
1 year	2	1.27%
1.01 years to 2 years	50	31.65%
2.01 years to 3 years	23	14.56%
More than 3 years	62	39.24%
	158	100.00%

20.) If you use blood analysis for ***alcohol*** testing, how often do you confirm initial (screen) positive drug test results?

	FREQUENCY	PERCENT
Always	89	74.17%
Never	23	19.17%
Sometimes	8	6.67%
	120	100.00%

21.) Do you conduct:

	Yes		No	
	Frequency	Percent	Frequency	Percent
Preemployment alcohol testing?	108	61.02%	69	38.98%
Postaccident alchol testing	132	74.58%	45	25.42%
Reasonable cause alcohol testing?	170	96.05%	7	3.95%
Return-to-duty alchol testing?	96	54.24%	81	45.76%
Periodic alcohol testing in conjunction with scheduled medical examinations?	64	36.16%	113	63.84%
Random alcohol testing?	16	9.04%	161	90.96%

21a.) (IF **"YES"** TO RANDOM ALCOHOL TESTING) For each of the following, please indicate whether it is true or not true of your system's alcohol testing program?

	Not True		True		Don't Know	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
a. Employees selected for testing are told only after reporting to work the day of the test	0	0.00%	13	100.00%		
b. Tests are given without regard to previous selection for testing, behavior or accident involvement	2	15.38%	11	84.62%		
c. Testing is pretty evenly distributed across the entire year, across days of the week, and across all work shifts (circle true only if *all* three conditions apply)	2	15.38%	10	76.92%	1	7.69%

20.) If you use blood analysis for ***alcohol*** testing, how often do you confirm initial (screen) positive drug test results?

	FREQUENCY	PERCENT
Always	89	74.17%
Never	23	19.17%
Sometimes	8	6.67%
	120	100.00%

21.) Do you conduct:

	Yes		No	
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Random alcohol testing?	16	9.04%	161	90.96%

21a.) (IF **"YES"** TO RANDOM ALCOHOL TESTING) For each of the following, please indicate whether it is true or not true of your system's alcohol testing program?

	Not True		True		Don't Know	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
a. Employees selected for testing are told only after reporting to work the day of the test	0	0.00%	13	100.00%		
b. Tests are given without regard to previous selection for testing, behavior or accident involvement	2	15.38%	11	84.62%		
c. Testing is pretty evenly distributed across the entire year, across days of the week, and across all work shifts *(circle true* only if ***all*** three conditions apply)	2	15.38%	10	76.92%	1	7.69%

23.) About how many alcohol tests did you do in calendar year 1990 and what results did you encounter by job category?

	Frequency			
	No. of Samples Submitted	**Laboratory Confirmed Positive**	**MRO Verified**	**Positive Rate**
Vehicle Operators	12,560	276	228	1.82%
Vehicle Maintainers	2,160	40	32	1.48%
Signal Maintainers	38	3	3	7.89%
Power Distribution Maintainers	122	2	2	1.64%
Other Equipment Maintainers	301	11	11	3.65%
Inspectors	151	4	4	2.65%
Towermen/Switchmen	29	0	0	0.00%
Police or Security Officers	435	4	4	0.92%
Dispatchers/ Controllers	140	6	6	4.29%
Other job categories	958	35	35	3.65%
First Line Super-visors of above	709	3	3	0.42%
TOTAL	17,603	384	328	1.86%

23.) About how many alcohol tests did you do in calendar year 1990 and what results did you encounter by job category?

	Frequency			
	No. of Samples Submitted	**Laboratory Confirmed Positive**	**MRO Verified**	**Positive Rate**
Vehicle Operators	12,560	276	228	1.82%
Vehicle Maintainers	2,160	40	32	1.48%
Signal Maintainers	38	3	3	7.89%
Power Distribution Maintainers	122	2	2	1.64%
Other Equipment Maintainers	301	11	11	3.65%
Inspectors	151	4	4	2.65%
Towermen/Switchmen	29	0	0	0.00%
Police or Security Officers	435	4	4	0.92%
Dispatchers/ Controllers	140	6	6	4.29%
Other job categories	958	35	35	3.65%
First Line Super-visors of above	709	3	3	0.42%
TOTAL	17,603	384	328	1.86%

24.) How many alcohol tests did you do in calendar year 1990 and what results did you encounter by test category?

	Frequency			
	No. Samples Submitted	Laboratory Confirmed Positive	MRO Verified	Positive Rate
Preemployment tests	9,344	269	120	1.28%
Postaccident tests	4,931	147	98	1.99%
Reasonable cause tests	1,091	170	153	14.02%
Return-to-duty tests	3,416	88	51	1.49%
Periodic tests	12,384	75	28	0.23%
Completely random tests	3,641	8	6	0.16%
TOTAL	34,807	757	456	1.31%

How many alcohol tests did you do in calendar year 1990 and what results did you encounter by test category?

	Percentage		
	No. of Samples Submitted	Laboratory Confirmed Positive	MRO Verified
Preemployment tests	26.85%	35.54%	26.32%
Postaccident tests	14.17%	19.42%	21.49%
Reasonable cause tests	3.13%	22.46%	33.55%
Return-to-duty tests	9.81%	11.62%	11.18%
Periodic tests	35.58%	9.91%	6.14%
Completely random tests	10.46%	1.06%	1.32%
TOTAL	100.00%	100.00%	100.00%

FOR TRANSIT SYSTEMS WITHOUT AN ALCOHOL TESTING PROGRAM

25.) Has this transit system ever had an alcohol testing program?

	FREQUENCY	PERCENT
Yes	2	1.55%
No	127	98.45%
	129	100.00%

24.) How many alcohol tests did you do in calendar year 1990 and what results did you encounter by test category?

	Frequency			
	No. Samples Submitted	Laboratory Confirmed Positive	MRO Verified	Positive Rate
Preemployment tests	9,344	269	120	1.28%
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How many alcohol tests did you do in calendar year 1990 and what results did you encounter by test category?

	Percentage		
	No. of Samples Submitted	Laboratory Confirmed Positive	MRO Verified
Preemployment tests	26.85%	35.54%	26.32%
Postaccident tests	14.17%	19.42%	21.49%
Reasonable cause tests	3.13%	22.46%	33.55%
Return-to-duty tests	9.81%	11.62%	11.18%
Periodic tests	35.58%	9.91%	6.14%
Completely random tests	10.46%	1.06%	1.32%
TOTAL	100.00%	100.00%	100.00%

FOR TRANSIT SYSTEMS WITHOUT AN ALCOHOL TESTING PROGRAM

25.) Has this transit system ever had an alcohol testing program?

	FREQUENCY	PERCENT
Yes	2	1.55%
No	127	98.45%
	129	100.00%

27.) About how many laboratory confirmed positive alcohol and/or drug test results in calendar year 1990 did you encounter by job category and drug?

	Frequency					
	Alcohol	Marijuana	Opiates	Amphetamines	Cocaine	Barbituates
Vehicle Operators	81	256	111	12	494	72
Vehicle Maintainers	24	85	28	2	57	7
Signal Maintainers	2	3	5	0	9	4
Power Distrib Maintainers	2	0	0	1	0	1
Other Equipment Maintainers	6	8	22	4	97	11
Inspectors	4	6	4	0	6	2
Towermen/Switchmen	0	2	8	0	2	2
Police or Security Officers	4	14	21	1	3	5
Dispatchers/Controllers	4	0	3	0	9	0
First Line Supervisors of above	2	1	12	3	13	6
Other job categories	39	125	145	51	245	43
TOTAL	**168**	**500**	**359**	74	**935**	153

	Percent					
	Alcohol	Marijuana	Opiates	Amphetamines	Cocaine	Barbituates
Vehicle Operators	7.03%	22.20%	9.63%	1.04%	42.84%	6.24%
Vehicle Maintainers	10.71%	37.95%	12.50%	0.89%	25.45%	3.13%
Signal Maintainers	8.00%	12.00%	20.00%	0.00%	36.00%	16.00%
Power Distrib Maintainers	28.57%	0.00%	0.00%	14.29%	0.00%	14.29%
Other Equipment Maintainers	3.61%	4.82%	13.25%	2.41%	58.43%	6.63%
Inspectors	0.00%	13.33%	53.33%	0.00%	13.33%	13.33%
Towermen/Switchmen	0.00%	13.33%	53.33%	0.00%	13.33%	13.33%
Police or Security Officers	6.90%	24.14%	36.21%	1.72%	5.17%	8.62%
Dispatchers/Controllers	22.22%	0.00%	16.67%	0.00%	50.00%	0.00%
First Line Supervisors of above	4.35%	2.17%	26.09%	6.52%	28.26%	13.04%
Other job categories	5.37%	17.22%	19.97%	7.02%	33.75%	5.92%
TOTAL	6.82%	20.28%	**14.56%**	3.00%	37.93%	6.21%

27.) About how many laboratory confirmed positive alcohol and/or drug test results in calendar year 1990 did you encounter by job category and drug?

	Frequency					
	Alcohol	Marijuana	Opiates	Amphetamines	Cocaine	Barbituates
Vehicle Operators	81	256	111	12	494	72
Vehicle Maintainers	24	85	28	2	57	7
Signal Maintainers	2	3	5	0	9	4
Power Distrib Maintainers	2	0	0	1	0	1
Other Equipment Maintainers	6	8	22	4	97	11
Inspectors	4	6	4	0	6	2
Towermen/Switchmen	0	2	8	0	2	2
Police or Security Officers	4	14	21	1	3	5
Dispatchers/Controllers	4	0	3	0	9	0
First Line Supervisors of above	2	1	12	3	13	6
Other job categories	39	125	145	51	245	43
TOTAL	**168**	**500**	**359**	74	**935**	153

	Percent					
	Alcohol	Marijuana	Opiates	Amphetamines	Cocaine	Barbituates
Vehicle Operators	7.03%	22.20%	9.63%	1.04%	42.84%	6.24%
Vehicle Maintainers	10.71%	37.95%	12.50%	0.89%	25.45%	3.13%
Signal Maintainers	8.00%	12.00%	20.00%	0.00%	36.00%	16.00%
Power Distrib Maintainers	28.57%	0.00%	0.00%	14.29%	0.00%	14.29%
Other Equipment Maintainers	3.61%	4.82%	13.25%	2.41%	58.43%	6.63%
Inspectors	0.00%	13.33%	53.33%	0.00%	13.33%	13.33%
Towermen/Switchmen	0.00%	13.33%	53.33%	0.00%	13.33%	13.33%
Police or Security Officers	6.90%	24.14%	36.21%	1.72%	5.17%	8.62%
Dispatchers/Controllers	22.22%	0.00%	16.67%	0.00%	50.00%	0.00%
First Line Supervisors of above	4.35%	2.17%	26.09%	6.52%	28.26%	13.04%
Other job categories	5.37%	17.22%	19.97%	7.02%	33.75%	5.92%
TOTAL	6.82%	20.28%	**14.56%**	3.00%	37.93%	6.21%

28.) Which of the following best describes your policy concerning job applicants who test positive for drugs and/or alcohol?

	FREQUENCY	PERCENT
Refuse to consider for employment	170	77.98%
Permit applicant to reapply and take another test 30-60 days after initial test	8	3.67%
Permit applicant to reapply and take another test 61 or more days after initial test	32	14.68%
Will consider hiring for non-safety or security-sensitive position	8	3.67%
	218	100.00%

29.) Do you offer rehabilitation or treatment services to employees...

	Yes		No	
	Frequency	Percent	Frequency	Percent
After they test positive?	139	68.47%	64	31.53%
who volunteer before they test positive	197	92.49%	16	7.51%

30.) Do you. terminate employees after they test positive...

	Yes		No		Don't Know	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
The first time?	88	43.56%	113	55.94%	1	0.50
The second time?	93	86.92%	13	12.15%	1	0.93
More than twice?	11	78.57%	2	14.29%	1	7.14

31.) Do you have an Employee Assistance Program **(EAP)** available to your work force?

	FREQUENCY	PERCENT
Yes	233	87.59%
No	33	12.41%
	266	100.00%

28.) Which of the following best describes your policy concerning job applicants who test positive for drugs and/or alcohol?

	FREQUENCY	PERCENT
Refuse to consider for employment	170	77.98%
Permit applicant to reapply and take another test 30-60 days after initial test	8	3.67%
Permit applicant to reapply and take another test 61 or more days after initial test	32	14.68%
Will consider hiring for non-safety or security-sensitive position	8	3.67%
	218	100.00%

29.) Do you offer rehabilitation or treatment services to employees...

	Yes		No	
	Frequency	Percent	Frequency	Percent
After they test positive?	139	68.47%	64	31.53%
who volunteer before they test positive	197	92.49%	16	7.51%

30.) Do you. terminate employees after they test positive...

	Yes		No		Don't Know	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
The first time?	88	43.56%	113	55.94%	1	0.50
The second time?	93	86.92%	13	12.15%	1	0.93
More than twice?	11	78.57%	2	14.29%	1	7.14

31.) Do you have an Employee Assistance Program **(EAP)** available to your work force?

	FREQUENCY	PERCENT
Yes	233	87.59%
No	33	12.41%
	266	100.00%

34.) Of these accidents, how many may have had substance abuse by your employees as at least a contributing factor?

Number of Accidents (Frequency)	Number of Employees					
	1-50	51-100	101-150	151-200	201-499	500 +
1	0	1	2	1	3	7
2	0	0	0	0	0	1
3	0	0	0	0	0	2
4	0	0	1	0	0	2
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	0	0	0	3
8	0	0	0	0	0	1
9	0	0	0	0	0	0
10 or more	0	0	0	0	0	4
None	26	27	29	13	20	13
Don't Know	0	2	1	1	0	3
TOTAL	26	30	33	15	23	36

Number of Accidents (Percent)	Number of Employees					
	1-50	51-100	101-150	151-200	201-499	500 +
1	0.00%	3.33%	6.06%	6.67%	13.04%	19.44%
2	0.00%	0.00%	0.00%	0.00%	0.00%	2.78%
3	0.00%	0.00%	0.00%	0.00%	0.00%	5.56%
4	0.00%	0.00%	3.03%	0.00%	0.00%	5.56%
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0.00%	0.00%	0.00%	0.00%	0.00%	8.33%
8	0.00%	0.00%	0.00%	0.00%	0.00%	2.78%
9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10 or more	0.00%	0.00%	0.00%	0.00%	0.00%	11.11%
None	100.00%	90.00%	87.88%	86.69%	86.96%	36.11%
Don't Know	0.00%	6.67%	3.03%	6.67%	0.00%	8.33%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

34.) Of these accidents, how many may have had substance abuse by your employees as at least a contributing factor?

Number of Accidents (Frequency)	Number of Employees					
	1-50	51-100	101-150	151-200	201-499	500 +
1	0	1	2	1	3	7
2	0	0	0	0	0	1
3	0	0	0	0	0	2
4	0	0	1	0	0	2
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	0	0	0	3
8	0	0	0	0	0	1
9	0	0	0	0	0	0
10 or more	0	0	0	0	0	4
None	26	27	29	13	20	13
Don't Know	0	2	1	1	0	3
TOTAL	26	30	33	15	23	36

Number of Accidents (Percent)	Number of Employees					
	1-50	51-100	101-150	151-200	201-499	500 +
1	0.00%	3.33%	6.06%	6.67%	13.04%	19.44%
2	0.00%	0.00%	0.00%	0.00%	0.00%	2.78%
3	0.00%	0.00%	0.00%	0.00%	0.00%	5.56%
4	0.00%	0.00%	3.03%	0.00%	0.00%	5.56%
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0.00%	0.00%	0.00%	0.00%	0.00%	8.33%
8	0.00%	0.00%	0.00%	0.00%	0.00%	2.78%
9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10 or more	0.00%	0.00%	0.00%	0.00%	0.00%	11.11%
None	100.00%	90.00%	87.88%	86.69%	86.96%	36.11%
Don't Know	0.00%	6.67%	3.03%	6.67%	0.00%	8.33%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Table A-2
Mean Number Of Major Accidents From All Causes And Substance Abuse Related Accidents By Number Of Employees (Q. - 33 & 34)

Major Accident Experience	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
	#	#	#	#	#	#	#
Mean Number Of Major Accidents	36.5	2.2	4.4	5.4	14.8	32.1	145.7
Mean Number Of Substance Abuse Related Major Accidents	10.9	-	1.0	2.0	1.0	1.0	14.7
Major Accidents/Substance Abuse Related Accidents (%)	29.8		23.7	37.0	6.8	3.1	9.6
(N) =	(276,28)	(107,(0)	(58.1)	(39.3)	(16,1)	(23.3)	(33,20)

Note: Care is necessary in using this table since the number of agencies reporting substance abuse related accidents was limited to 28 agencies.

Source: Transit Agency Substance Abuse Survey

Table A-2
Mean Number Of Major Accidents From All Causes And Substance Abuse Related Accidents By Number Of Employees (Q. - 33 & 34)

Major Accident Experience	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
	#	#	#	#	#	#	#
Mean Number Of Major Accidents	36.5	2.2	4.4	5.4	14.8	32.1	145.7
Mean Number Of Substance Abuse Related Major Accidents	10.9	-	1.0	2.0	1.0	1.0	14.7
Major Accidents/Substance Abuse Related Accidents (%)	29.8		23.7	37.0	6.8	3.1	9.6
(N) =	(276,28)	(107,(0)	(58.1)	(39.3)	(16,1)	(23.3)	(33,20)

Note: Care is necessary in using this table since the number of agencies reporting substance abuse related accidents was limited to 28 agencies.

Source: Transit Agency Substance Abuse Survey

Table A-4
Provision Of Substance Abuse Training, By System Size And Test Practices (Q. - 32)

	Total %	Number Of Employees: 1 to 50 %	51 to 100 %	101 to 150 %	151 to 200 %	201 to 499 %	500+ %
Provides Substance Abuse Training	85	80	83	84	90	92	90
Does Not Provide Substance Abuse Training	15	20	17	16	10	8	10
(N) =	(267)	(87)	(48)	(37)	(19)	(26)	(50)

	Total %	System Does Drug Testing: Yes %	No %	System Does Alcohol Testing: Yes %	No %
Provides Substance Abuse Training	85	88	65	92	72
Does Not Provide Substance Abuse Training	15	12	35	8	28
(N) =	(267)	(234)	(33)	(174)	(93)

Source: Transit Agency Substance Abuse Survey

Table A-5
Substances Of Perceived Abuse Ranked By Prevalence
For Systems Perceiving A Substance Abuse Problem (Q. - 1a)

	Illegal Drugs %	Alcohol %	Prescription Drugs %
Most Prevalent	24	76	1
Moderately Prevalent	55	19	26
Least Prevalent	21	5	74
(N) =	(90)	(94)	(90)

Table A-5
Substances Of Perceived Abuse Ranked By Prevalence
For Systems Perceiving A Substance Abuse Problem (Q. - 1a)

	Illegal Drugs %	Alcohol %	Prescription Drugs %
Most Prevalent	24	76	1
Moderately Prevalent	55	19	26
Least Prevalent	21	5	74
(N) =	(90)	(94)	(90)

Table A-5
Substances Of Perceived Abuse Ranked By Prevalence
For Systems Perceiving A Substance Abuse Problem (Q. - 1a)

	Illegal Drugs %	Alcohol %	Prescription Drugs %
Most Prevalent	24	76	1
Moderately Prevalent	55	19	26
Least Prevalent	21	5	74
(N) =	(90)	(94)	(90)

Table A-8
Termination Policy For Employees Who Test Positive For Drugs And/Or Alcohol Among Systems That Test, By System Size (Q. - 30)

Termination Policy Options	Total %	Number Of Employees 1 to 50 %	51 to 100 %	101 to 150 %	151 to 200 %	201 to 499 %	500+ %	Had Substance Abuse Accident %
Terminate On First Positive Test	44	38	32	50	47	54	49	52
Terminate On Second Positive Test	46	48	62	23	47	36	47	48
Terminate On Third Or Later Positive Test	5	8	2	15	0	4	2	0
No Answer	5	6	4	12	6	6	2	0
(N) =	(202)	(52)	(40)	(26)	(17)	(22)	(45)	(27)

Source: Transit Agency Substance Abuse Survey

NOTE: Percents are based on total respondents considering Q. - 30

Table A-8
Termination Policy For Employees Who Test Positive For Drugs And/Or Alcohol Among Systems That Test, By System Size (Q. - 30)

Termination Policy Options	Total %	Number Of Employees 1 to 50 %	51 to 100 %	101 to 150 %	151 to 200 %	201 to 499 %	500+ %	Had Substance Abuse Accident %
Terminate On First Positive Test	44	38	32	50	47	54	49	52
Terminate On Second Positive Test	46	48	62	23	47	36	47	48
Terminate On Third Or Later Positive Test	5	8	2	15	0	4	2	0
No Answer	5	6	4	12	6	6	2	0
(N) =	(202)	(52)	(40)	(26)	(17)	(22)	(45)	(27)

Source: Transit Agency Substance Abuse Survey

NOTE: Percents are based on total respondents considering Q. - 30

Table A-10
Presence Of An Employee Assistance Program Among Systems That Test By System Size And Test Practices (Q. - 31)

	Total %	Number Of Employees: 1 to 50 %	51 to 100 %	101 to 150 %	151 to 200 %	201 to 400 %	401+ %
Has EAP	88	83	88	84	90	92	96
Does Not Have EAP	12	17	12	16	10	8	4
(N) =	(266)	(88)	(48)	(37)	(19)	(26)	(50)

	Total %	System Does Drug Testing: Yes %	No %	System Does Alcohol Testing: Yes %	No %
Has EAP	88	88	88	94	76
Does Not Have EAP	12	12	12	6	24
(N) =	(266)	(233)	(34)	(174)	(92)

EAP -- Employee Assistance Program

Source: Transit Agency Substance Abuse Survey

Table A-10
Presence Of An Employee Assistance Program Among Systems That Test By System Size And Test Practices (Q. - 31)

	Total %	Number Of Employees: 1 to 50 %	51 to 100 %	101 to 150 %	151 to 200 %	201 to 400 %	401+ %
Has EAP	88	83	88	84	90	92	96
Does Not Have EAP	12	17	12	16	10	8	4
(N) =	(266)	(88)	(48)	(37)	(19)	(26)	(50)

	Total %	System Does Drug Testing: Yes %	No %	System Does Alcohol Testing: Yes %	No %
Has EAP	88	88	88	94	76
Does Not Have EAP	12	12	12	6	24
(N) =	(266)	(233)	(34)	(174)	(92)

EAP -- Employee Assistance Program

Source: Transit Agency Substance Abuse Survey

Table A-12
Use Of Enzyme-Multiplied Immunoassay Technique (EMIT)
By System Size (Q. - 7)

	Total %	Number Of Employees 1 to 50 %	51 to 100 %	101 to 150 %	151 to 200 %	201 to 499 %	500+ %
Use EMIT Routinely	78	68	66	86	67	87	96
Use EMIT In Special Cases	2	3	3	0	6	0	2
EMIT Not Used At All	14	15	26	14	22	13	2
Don't Know	5	13	5	0		0	0
(N) =	(215)	(60)	(38)	(28)	(18)	(23)	(48)

Source: Transit Agency Substance Abuse Survey

Table A-13
Use Of Gas Chromatography/Mass Spectrometry Technique (GC/MS) By System Size (Q. - 7)

	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
	%	%	%	%	%	%	%
Use GC/MS Routinely	47	38	46	43	39	52	60
Use GC/MS In Special Cases	40	37	35	46	56	44	38
Do Not Use GC/MS At All	8	12	14	11	0	4	2
Don't Know	5	13	5	0	6	0	0
(N) =	(214)	(60)	(37)	(28)	(18)	(23)	(48)

Source: Transit Agency Substance Abuse Survey

Table A-14
Use Of Thin-Layer Chromatography Technique (TLC)
By System Size (Q. - 7)

	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
	%	%	%	%	%	%	%
Use TLC Routinely	7	10	10	4	0	0	10
Use TLC In Special Cases	7	5	10	14	6	0	8
Do Not Use TLC At All	79	70	74	82	89	100	79
Don't Know	6	15	5	0	6	0	2
(N) =	(215)	(60)	(38)	(28)	(18)	(23)	(48)

Source: Transit Agency Substance Abuse Survey

Table A-14
Use Of Thin-Layer Chromatography Technique (TLC)
By System Size (Q. - 7)

	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
	%	%	%	%	%	%	%
Use TLC Routinely	7	10	10	4	0	0	10
Use TLC In Special Cases	7	5	10	14	6	0	8
Do Not Use TLC At All	79	70	74	82	89	100	79
Don't Know	6	15	5	0	6	0	2
(N) =	(215)	(60)	(38)	(28)	(18)	(23)	(48)

Source: Transit Agency Substance Abuse Survey

Table A-16
Use Of Licensed Physician As Medical Review Officer (MRO) To Review Drug-Related Laboratory Results By System Size (Q. - 10)

		Number Of Employees					
	Total	1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
	%	%	%	%	%	%	%
Use A MRO	91	95	93	93	89	96	81
Do Not Use MRO			7	7	11	4	19
(N) =	(228)	(64)	(43)	(30)	(18)	(26)	(47)

Source: Transit Agency Substance Abuse Survey

Table A-17
Types Of Drug Testing Categories
By System Size And Substance Abuse Related Accident Experience (Q. - 9)

Drug Testing Categories	Total	Number Of Employees: 1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+	Had Substance Abuse Accident
	%	%	%	%	%	%	%	%
Preemployment	96	91	96	100	95	100	98	100
Postaccident	73	63	71	73	74	88	80	89
Reasonable Cause	90	81	89	87	100	92	100	100
Return-To-Duty	64	63	59	57	68	54	78	93
Periodic Testing	52	50	56	33	63	50	60	61
Random Testing	18	21	18	3	10	8	30	18
(N) =	(238)	(70)	(45)	(30)	(19)	(26)	(48)	(27)

Source: Transit Agency Substance Abuse Survey

Note: This table summarizes data from a number of separate questions. Each cell shows the percentage of transit systems in a particular category that perform a particular type of test (e.g., 91% of transit systems with 1 to 50 employees conduct preemployment tests)

Table A-17
Types Of Drug Testing Categories
By System Size And Substance Abuse Related Accident Experience (Q. - 9)

Drug Testing Categories	Total	Number Of Employees						Had Substance Abuse Accident
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+	
	%	%	%	%	%	%	%	%
Preemployment	96	91	96	100	95	100	98	100
Postaccident	73	63	71	73	74	88	80	89
Reasonable Cause	90	a	89	87	100	92	100	100
Return-To-Duty	64	63	59	57	68	54	78	93
Periodic Testing	52	50	56	33	63	50	60	61
Random Testing	a	2	a	3	10	a	30	a
(N) =	(238)	(70)	(45)	(30)	(19)	(26)	(48)	(27)

Source: Transit Agency Substance Abuse Survey

Note: This table summarizes data from a number of separate questions. Each cell shows the percentage of transit systems in a particular category that perform a particular type of test (e.g., 91% of transit systems with 1 to 50 employees conduct preemployment tests)

Table A-19
Number Of Drug Tests Submitted, Positive Results And Percent Verified Across All Testing Categories For All Systems (Q. - 12 & 34)

	Total #	Number Of Employees 1 to 50 #	51 to 100 #	101 to 150 #	151 to 200 #	201 to 499 #	500+ #	Had Substance Abuse Accident #
Samples Submitted	96,071	1,302	1,296	1,380	1,171	2,960	87,962	75,869
Lab-Confirmed Positive	3,791	35	41	41	38	62	3,574	3,255
MRO Verified	3,584	25	30	41	28	37	3,423	3,085
Verified/ Submitted	3.7%	1.9%	2.3%	3.0%	2.3%	1.3%	3.9%	4.1%

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

*Note: The difference between totals in Tables A-19 and A-20 is accounted for by preemployment tests and tests of nonsensitive safety employees in some systems.

Table A-20
Number Of Drug Tests Submitted, Positive Results And Percent Verified Across All Sensitive Safety Job Categories For All Systems (Q. - 11 & 34)

	Total*	Number Of Employees						Had Substance Abuse Accident
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+	
	#	#	#	#	#	#	#	#
Samples Submitted	46,438	1,058	1,216	1,206	1,071	3,250	38,637	31,326
Lab-Confirmed Positive	2,130	24	39	34	33	66	1,934	1,755
MRO Verified	2,005	20	29	34	23	41	1,858	1,684
Verified/ Submitted	4.3%	1.9%	2.3%	2.8%	2.1%	1.3%	4.8%	5.4%

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

*Note: The difference between totals in Tables A-19 and A-20 is accounted for by preemployment tests and tests of nonsensitive safety employees in some systems.

Table A-20
Number Of Drug Tests Submitted, Positive Results And Percent Verified Across All Sensitive Safety Job Categories For All Systems (Q. - 11 & 34)

	Total*	Number Of Employees						Had Substance Abuse Accident
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+	
	#	#	#	#	#	#	#	#
Samples Submitted	46,438	1,058	1,216	1,206	1,071	3,250	38,637	31,326
Lab-Confirmed Positive	2,130	24	39	34	33	66	1,934	1,755
MRO Verified	2,005	20	29	34	23	41	1,858	1,684
Verified/ Submitted	4.3%	1.9%	2.3%	2.8%	2.1%	1.3%	4.8%	5.4%

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

*Note: The difference between totals in Tables A-19 and A-20 is accounted for by preemployment tests and tests of nonsensitive safety employees in some systems.

Table A-22
Mean Number Of Drug Tests Submitted And Showing Positive Results By Job Title, For Systems With 1 To 50 Employees (Q. - 11)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	13.5	0.2	0.1	0.74%
Vehicle Maintainers	4.0			
Signal Maintainers	2.0			
Power Distribution Maintainers	-			
Other Equipment Maintainers	2.0	0.5	0.5	2.50%
Inspectors	4.0			
Towermen/Switchmen	-			
Police/Security	3.5			
Dispatchers/Controllers	1.6			
First-Line Supervisors	1.7			
Other Job Categories	27.7	4.2	1.6	5.77%

Number Of Drug Testing Systems = 70

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-22
Mean Number Of Drug Tests Submitted And Showing Positive Results By Job Title, For Systems With 1 To 50 Employees (Q. - 11)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	13.5	0.2	0.1	0.74%
Vehicle Maintainers	4.0			
Signal Maintainers	2.0			
Power Distribution Maintainers	-			
Other Equipment Maintainers	2.0	0.5	0.5	2.50%
Inspectors	4.0			
Towermen/Switchmen	-			
Police/Security	3.5			
Dispatchers/Controllers	1.6			
First-Line Supervisors	1.7			
Other Job Categories	27.7	4.2	1.6	5.77%

Number Of Drug Testing Systems = 70

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-24
Mean Number Of Drug Tests Submitted And Showing Positive Results By Job Title, For Systems With 101 To 150 Employees (Q. - 11)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	36.8	1.1	1.1	2.98%
Vehicle Maintainers	6.6	0.2	0.2	3.03%
Signal Maintainers				
Power Distribution Maintainers				
Other Equipment Maintainers				
Inspectors				
Towermen/Switchmen				
Police/Security	1.5			
Dispatchers/Controllers	1.8	0.2	0.2	11.10%
First-Line Supervisors	3.3			
Other Job Categories	3.7			

Number Of Drug Testing Systems = 30

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-24
Mean Number Of Drug Tests Submitted And Showing Positive Results By Job Title, For Systems With 101 To 150 Employees (Q. - 11)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	36.8	1.1	1.1	2.98%
Vehicle Maintainers	6.6	0.2	0.2	3.03%
Signal Maintainers				
Power Distribution Maintainers				
Other Equipment Maintainers				
Inspectors				
Towermen/Switchmen				
Police/Security	1.5			
Dispatchers/Controllers	1.8	0.2	0.2	11.10%
First-Line Supervisors	3.3			
Other Job Categories	3.7			

Number Of Drug Testing Systems = 30

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-26
Mean Number Of Drug Tests Submitted And Showing Positive Results By Job Title, For Systems With 201 To 499 Employees (Q. - 11)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	123.9	2.5	1.4	1.13%
Vehicle Maintainers	21.1	0.5	0.5	2.37%
Signal Maintainers	-	-		-
Power Distribution Maintainers	-	-		-
Other Equipment Maintainers	6.3	-		-
Inspectors	-	-		-
Towermen/Switchmen	-	-		-
Police/Security	10.0	-		-
Dispatchers/Controllers	2.2	-		-
First-Line Supervisors	5.1	-		-
Other Job Categories	14.4	0.3	0.3	2.08%

Number Of Drug Testing Systems = 26

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-26
Mean Number Of Drug Tests Submitted And Showing Positive Results By Job Title, For Systems With 201 To 499 Employees (Q. - 11)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	123.9	2.5	1.4	1.13%
Vehicle Maintainers	21.1	0.5	0.5	2.37%
Signal Maintainers	-	-		-
Power Distribution Maintainers	-	-		-
Other Equipment Maintainers	6.3	-		-
Inspectors	-	-		-
Towermen/Switchmen	-	-		-
Police/Security	10.0	-		-
Dispatchers/Controllers	2.2	-		-
First-Line Supervisors	5.1	-		-
Other Job Categories	14.4	0.3	0.3	2.08%

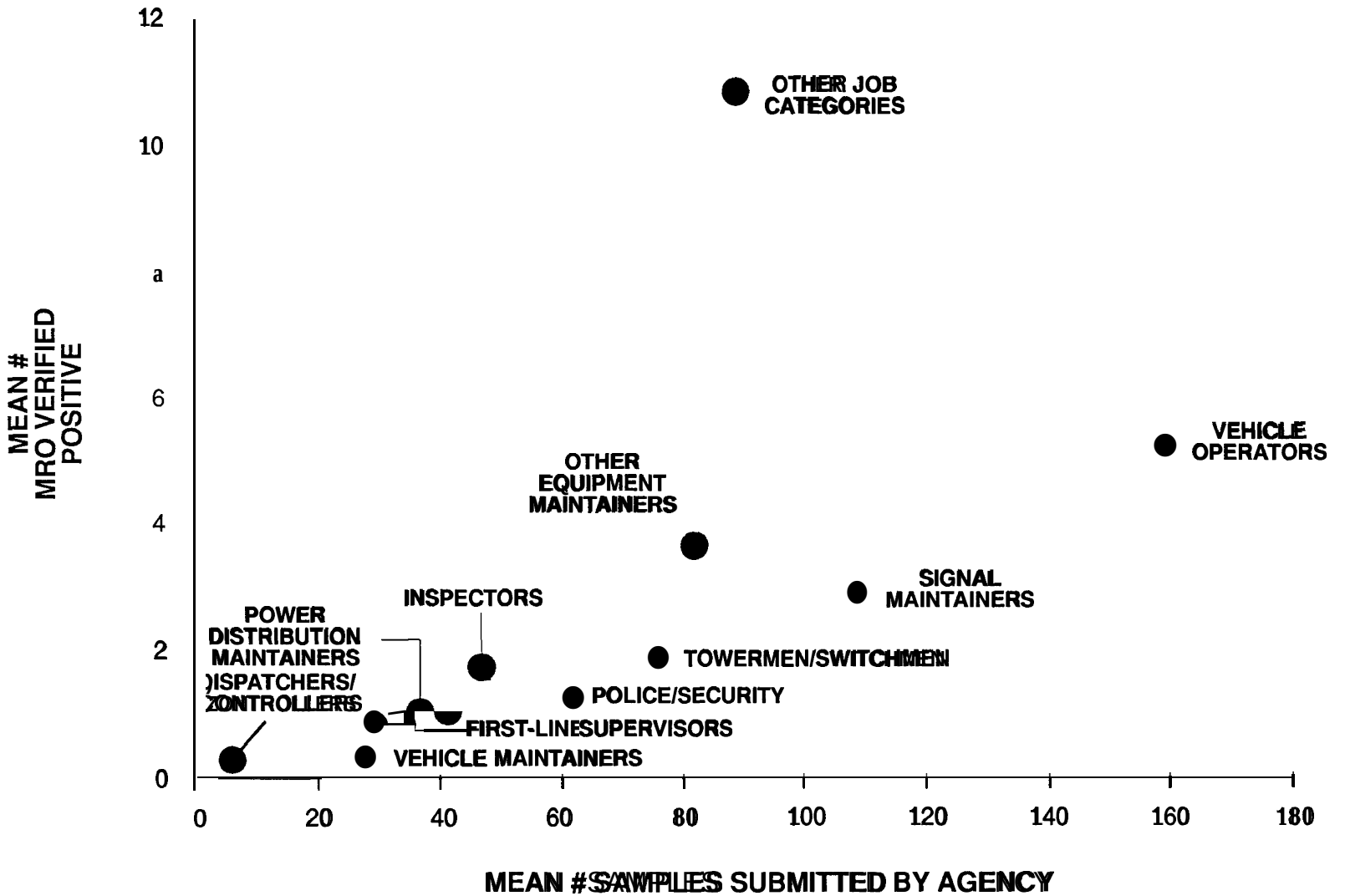
Number Of Drug Testing Systems = 26

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

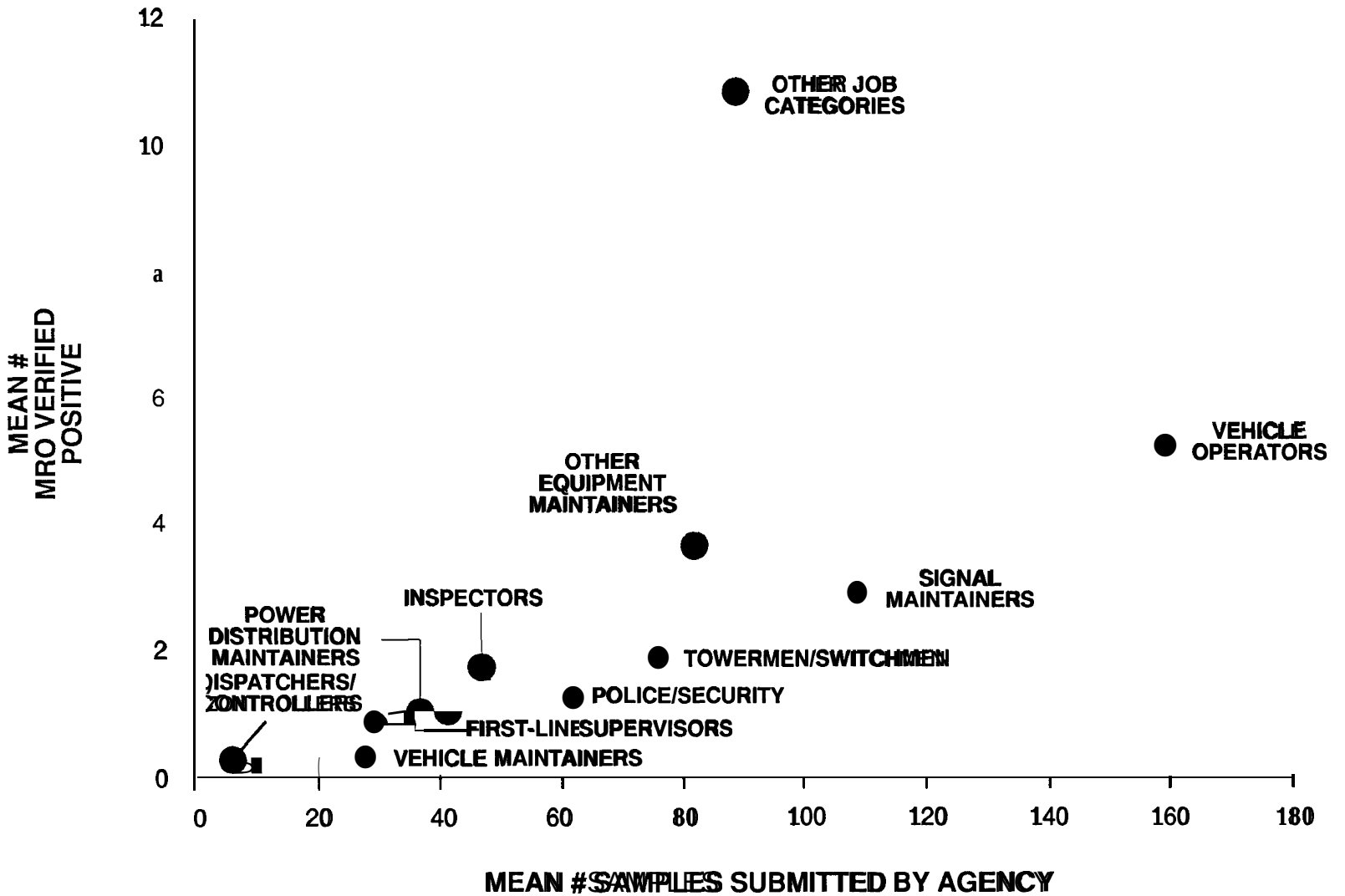
NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Figure A-28
MEAN NUMBER OF DRUG TESTS SUBMITTED AND SHOWING POSITIVE RESULTS BY JOB TITLE. FOR ALL SYSTEMS (Q. - 11)



MRO - Medicall Review Officer

Figure A-28
MEAN NUMBER OF DRUG TESTS SUBMITTED AND SHOWING POSITIVE RESULTS BY JOB TITLE. FOR ALL SYSTEMS (Q. - 11)



MRO - Medicall Review Officer

Table A-30
Mean Number Of Drug Tests Submitted And Showing Positive Results By Reason For Testing, For All Systems (Q. - 12)

Drug Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	167.4	8.7	8.0	4.78%
Postaccident Tests	80.7	3.5	3.3	4.08%
Reasonable Cause Tests	109.3	8.1	7.6	6.95%
Return-To-Duty Tests	178.1	10.6	9.4	5.28%
Periodic Tests	404.7	5.5	5.1	1.26%
Completely Random Tests	289.0	7.5	7.0	2.42%

Number Of Drug Testing Systems = 238

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-30
Mean Number Of Drug Tests Submitted And Showing Positive Results By Reason For Testing, For All Systems (Q. - 12)

Drug Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	167.4	8.7	8.0	4.78%
Postaccident Tests	80.7	3.5	3.3	4.08%
Reasonable Cause Tests	109.3	8.1	7.6	6.95%
Return-To-Duty Tests	178.1	10.6	9.4	5.28%
Periodic Tests	404.7	5.5	5.1	1.26%
Completely Random Tests	289.0	7.5	7.0	2.42%

Number Of Drug Testing Systems = 238

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-32
Mean Number Of Drug Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 51 To 100 Employees (Q. - 12)

Drug Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	15.1	0.8	0.5	3.31%
Postaccident Tests	5.6	0.1	0.1	1.78%
Reasonable Cause Tests	2.6	0.4	0.4	15.40%
Return-To-Duty Tests	4.5	0.1	0.1	2.22%
Periodic Tests	37.0	0.3	0.3	0.81%
Completely Random Tests	16.0	0.3	0.3	1.87%

Number Of Drug Testing Systems = 45

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-32
Mean Number Of Drug Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 51 To 100 Employees (Q. - 12)

Drug Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	15.1	0.8	0.5	3.31%
Postaccident Tests	5.6	0.1	0.1	1.78%
Reasonable Cause Tests	2.6	0.4	0.4	15.40%
Return-To-Duty Tests	4.5	0.1	0.1	2.22%
Periodic Tests	37.0	0.3	0.3	0.81%
Completely Random Tests	16.0	0.3	0.3	1.87%

Number Of Drug Testing Systems = 45

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-34
Mean Number Of Drug Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 151 To 200 Employees (Q. - 12)

Drug Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	36.5	1.4	1.0	2.74%
Postaccident Tests	6.9	0.3	0.3	4.35%
Reasonable Cause Tests	1.9	0.6	0.6	31.60%
Return-To-Duty Tests	6.4	0.4	0.1	1.56%
Periodic Tests	41.0	0.3	0.1	0.24%
Completely Random Tests	51.0	0.5	0.5	0.98%

Number Of Drug Testing Systems = 19

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-34
Mean Number Of Drug Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 151 To 200 Employees (Q. - 12)

Drug Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	36.5	1.4	1.0	2.74%
Postaccident Tests	6.9	0.3	0.3	4.35%
Reasonable Cause Tests	1.9	0.6	0.6	31.60%
Return-To-Duty Tests	6.4	0.4	0.1	1.56%
Periodic Tests	41.0	0.3	0.1	0.24%
Completely Random Tests	51.0	0.5	0.5	0.98%

Number Of Drug Testing Systems = 19

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-36
Mean Number Of Drug Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 500+ Employees (Q. - 12)

Drug Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	749.5	42.3	36.9	4.92%
Postaccident Tests	215.6	9.7	8.6	3.98%
Reasonable Cause Tests	237.8	17.5	15.6	6.56%
Return-To-Duty Tests	368.0	22.0	19.0	5.16%
Periodic Tests	1295.0	17.5	15.5	1.19%
Completely Random Tests	526.3	15.4	13.4	2.54%

Number Of Drug Testing Systems = 48

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-36
Mean Number Of Drug Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 500+ Employees (Q. - 12)

Drug Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	749.5	42.3	36.9	4.92%
Postaccident Tests	215.6	9.7	8.6	3.98%
Reasonable Cause Tests	237.8	17.5	15.6	6.56%
Return-To-Duty Tests	368.0	22.0	19.0	5.16%
Periodic Tests	1295.0	17.5	15.5	1.19%
Completely Random Tests	526.3	15.4	13.4	2.54%

Number Of Drug Testing Systems = 48

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-38
Use Of Urinalysis For Alcohol Testing
By System Size (Q. - 17 & 18)

Use of Urinalysis	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
		%	%	%	%	%	%
Routinely	50	51	59	32	71	54	45
In Special Cases	6	10	9	4	7	4	2
Do Not Use At All	44	38	31	64	21	41	53
(N) = (Q.17)	(177)	(39)	(32)	(25)	(14)	(22)	(45)
Confirm Initial Positives							
Always	90	86	80	100	88	100	95
Never	5	10	5		12		5
Sometimes	3		15				
Do Not Know	1	5					-
(N) = (Q.18)	(92)	(21)	(20)	(9)	(8)	(13)	(21)

Source: Transit Agency Substance Abuse Survey

Table A-38
Use Of Urinalysis For Alcohol Testing
By System Size (Q. - 17 & 18)

Use of Urinalysis	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
		%	%	%	%	%	%
Routinely	50	51	59	32	71	54	45
In Special Cases	6	10	9	4	7	4	2
Do Not Use At All	44	38	31	64	21	41	53
(N) = (Q.17)	(177)	(39)	(32)	(25)	(14)	(22)	(45)
Confirm Initial Positives							
Always	90	86	80	100	88	100	95
Never	5	10	5		12		5
Sometimes	3		15				
Do Not Know	1	5					-
(N) = (Q.18)	(92)	(21)	(20)	(9)	(8)	(13)	(21)

Source: Transit Agency Substance Abuse Survey

Table A-40
Use Of Blood Analysis For Alcohol Testing By System Size (Q. - 17 & 20)

Use of Blood Analysis	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
		%	%	%	%	%	%
Routinely	39	31	31	44	21	41	53
In Special Cases	37	38	38	36	57	41	27
Do Not Use At All	24	31	31	20	21	18	19
(N) = (Q.17)	(177)	(39)	(32)	(25)	(14)	(22)	(45)
Confirm Initial Positives							
Always	74	61	65	79	88	76	80
Never	19	22	30	16	12	18	14
Sometimes	7	17	5	5		6	6
Do Not Know							
(N) = (Q.20)	(120)	(23)	(20)	(19)	(8)	(17)	(33)

Source: Transit Agency Substance Abuse Survey

Table A-40
Use Of Blood Analysis For Alcohol Testing By System Size (Q. - 17 & 20)

Use of Blood Analysis	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
		%	%	%	%	%	%
Routinely	39	31	31	44	21	41	53
In Special Cases	37	38	38	36	57	41	27
Do Not Use At All	24	31	31	20	21	18	19
(N) = (Q.17)	(177)	(39)	(32)	(25)	(14)	(22)	(45)
Confirm Initial Positives							
Always	74	61	65	79	88	76	80
Never	19	22	30	16	12	18	14
Sometimes	7	17	5	5		6	6
Do Not Know							
(N) = (Q.20)	(120)	(23)	(20)	(19)	(8)	(17)	(33)

Source: Transit Agency Substance Abuse Survey

Table A-42
Types Of Alcohol Test Categories
By System Size And Substance Abuse Related Accident Experience (Q. - 21)

Testing Categories	Total %	Number Of Employees 1 to 50 %	51 to 100 %	101 to 150 %	151 to 200 %	201 to 499 %	500+ %	Substance Abuse Accident %
Preemployment	61	46	75	56	100	50	60	56
Postaccident	74	72	69	84	71	73	79	88
Reasonable Cause	96	95	97	88	100	100	98	100
Return-To-Duty	54	59	62	44	64	46	51	72
Periodic Testing	36	36	47	16	50	23	42	40
Random Testing	10	10	12	-		14	11	8
(N) =	(179)	(39)	(32)	(25)	(14)	(22)	(45)	(25)

Source: Transit Agency Substance Abuse Survey

Table A-42
Types Of Alcohol Test Categories
By System Size And Substance Abuse Related Accident Experience (Q. - 21)

Testing Categories	Total %	Number Of Employees 1 to 50 %	51 to 100 %	101 to 150 %	151 to 200 %	201 to 499 %	500+ %	Substance Abuse Accident %
Preemployment	61	46	75	56	100	50	60	56
Postaccident	74	72	69	84	71	73	79	88
Reasonable Cause	96	95	97	88	100	100	98	100
Return-To-Duty	54	59	62	44	64	46	51	72
Periodic Testing	36	36	47	16	50	23	42	40
Random Testing	10	10	12	-		14	11	8
(N) =	(179)	(39)	(32)	(25)	(14)	(22)	(45)	(25)

Source: Transit Agency Substance Abuse Survey

Table A-44
Reasonable Cause Alcohol Testing Triggers
By System Size (Q. - 21 b)

Number of Reasonable Cause Tests Triggered By Major or Minor Accidents	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
		%	%	%	%	%	%
Most	34	41	44	20	25	48	25
Many, But Not Most	26	28	12	50	25	10	30
Very Few	40	28	44	30	50	43	46
(N) =	(154)	(32)	(25)	(20)	(12)	(21)	(44)

Source: Transit Agency Substance Abuse Survey

Table A-44
Reasonable Cause Alcohol Testing Triggers
By System Size (Q. - 21 b)

Number of Reasonable Cause Tests Triggered By Major or Minor Accidents	Total	Number Of Employees					
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+
		%	%	%	%	%	%
Most	34	41	44	20	25	48	25
Many, But Not Most	26	28	12	50	25	10	30
Very Few	40	28	44	30	50	43	46
(N) =	(154)	(32)	(25)	(20)	(12)	(21)	(44)

Source: Transit Agency Substance Abuse Survey

Table A-46
Number Of Alcohol Tests Submitted, Positive Results And Percent Verified Across All Job Categories For All Systems (Q. 23)

	Total	Number Of Employees						Had Substance Abuse Accident
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+	
	#	#	#	#	#	#	#	#
Samples Submitted	17,603	216	675	313	475	2,168	13,756	9,439
Lab Confirmed Positive	384	3	9	5	9	31	327	286
MRO Verified	328	2	6	5	8	12	295	273
Verified/ Submitted	1.9%	0.9%	0.9%	1.6%	1.7%	0.6%	2.1%	2.9%

MRO Medical Review Officer

Source: Transit Agency Substance Abuse Survey

*Note: The difference between totals in Tables A-45 and A-46 is accounted for by preemployment tests and tests of non-sensitive safety employees in some systems.

Table A-46
Number Of Alcohol Tests Submitted, Positive Results And Percent Verified Across All Job Categories For All Systems (Q. 23)

	Total	Number Of Employees						Had Substance Abuse Accident
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 499	500+	
	#	#	#	#	#	#	#	#
Samples Submitted	17,603	216	675	313	475	2,168	13,756	9,439
Lab Confirmed Positive	384	3	9	5	9	31	327	286
MRO Verified	328	2	6	5	8	12	295	273
Verified/ Submitted	1.9%	0.9%	0.9%	1.6%	1.7%	0.6%	2.1%	2.9%

MRO Medical Review Officer

Source: Transit Agency Substance Abuse Survey

*Note: The difference between totals in Tables A-45 and A-46 is accounted for by preemployment tests and tests of non-sensitive safety employees in some systems.

Table A-48
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Job Title, For Systems With 1 To 50 Employees (Q. - 23)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	13.1	0.1	0.1	0.76%
Vehicle Maintainers	5.0			
Signal Maintainers				
Power Distribution Maintainers				
Other Equipment Maintainers				
Inspectors				
Towermen/Switchmen				
Police/Security				
Dispatchers/Controllers	3.0			
First-line Supervisors	1.5			
Other Job Categories	1.0	0.5	0.5	0.5%

Number Of Drug Testing Systems = 39

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-49
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Job Title, For Systems With 51 To 100 Employees (Q. - 23)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	23.7	0.3	0.2	0.84%
Vehicle Maintainers	6.2	0.1	0.1	1.61%
Signal Maintainers	-	-	-	-
Power Distribution Maintainers	-	-	-	-
Other Equipment Maintainers	4.3	0.3	0.3	6.98%
Inspectors	-	-	-	-
Towermen/Switchmen	-	-	-	-
Police/Security	-	-	-	-
Dispatchers/Controllers	2.8	-	-	-
First-line Supervisors	2.8	-	-	-
Other Job Categories	5.0	-	-	-

Number Of Drug Testing Systems = 32

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-49
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Job Title, For Systems With 51 To 100 Employees (Q. - 23)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	23.7	0.3	0.2	0.84%
Vehicle Maintainers	6.2	0.1	0.1	1.61%
Signal Maintainers	-	-	-	-
Power Distribution Maintainers	-	-	-	-
Other Equipment Maintainers	4.3	0.3	0.3	6.98%
Inspectors	-	-	-	-
Towermen/Switchmen	-	-	-	-
Police/Security	-	-	-	-
Dispatchers/Controllers	2.8	-	-	-
First-line Supervisors	2.8	-	-	-
Other Job Categories	5.0	-	-	-

Number Of Drug Testing Systems = 32

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-51
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Job Title, For Systems With 151 To 200 Employees (Q. - 23)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	36.0	0.5	0.4	1.11%
Vehicle Maintainers	7.3	0.5	0.5	6.85%
Signal Maintainers	-	-	-	-
Power Distribution Maintainers	-	-	-	-
Other Equipment Maintainers	10.0		-	-
Inspectors	-	-	-	-
Towermen/Switchmen	-		-	-
Police/Security	-		-	-
Dispatchers/Controllers	3.0		-	-
First-line Supervisors	1.7		-	-
Other Job Categories	8.3			-

Number Of Drug Testing Systems = 14

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-51
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Job Title, For Systems With 151 To 200 Employees (Q. - 23)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	36.0	0.5	0.4	1.11%
Vehicle Maintainers	7.3	0.5	0.5	6.85%
Signal Maintainers	-	-	-	-
Power Distribution Maintainers	-	-	-	-
Other Equipment Maintainers	10.0		-	-
Inspectors	-	-	-	-
Towermen/Switchmen	-		-	-
Police/Security	-		-	-
Dispatchers/Controllers	3.0		-	-
First-line Supervisors	1.7		-	-
Other Job Categories	8.3			-

Number Of Drug Testing Systems = 14

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-53
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Job Title, For Systems With 500+ Employees (Q. - 23)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	346.3	8.5	6.6	1.91%
Vehicle Maintainers	75.3	1.3	0.8	1.10%
Signal Maintainers	12.7	0.8	0.4	3.15%
Power Distribution Maintainers	30.5	0.4	0.3	0.98%
Other Equipment Maintainers	37.6	1.3	0.9	2.39%
Inspectors	21.6	0.5	0.4	1.85%
Towermen/Switchmen	9.7			
Police/Security	72.3	0.8	0.4	0.55%
Dispatchers/Controllers	10.7	0.5	0.4	3.74%
First-line Supervisors	46.8	0.2	0.2	0.43%
Other Job Categories	79.9	3.1	2.4	3.00%

Number Of Drug Testing Systems = 45

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-53
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Job Title, For Systems With 500+ Employees (Q. - 23)

Employee Job Titles	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Vehicle Operators	346.3	8.5	6.6	1.91%
Vehicle Maintainers	75.3	1.3	0.8	1.10%
Signal Maintainers	12.7	0.8	0.4	3.15%
Power Distribution Maintainers	30.5	0.4	0.3	0.98%
Other Equipment Maintainers	37.6	1.3	0.9	2.39%
Inspectors	21.6	0.5	0.4	1.85%
Towermen/Switchmen	9.7			
Police/Security	72.3	0.8	0.4	0.55%
Dispatchers/Controllers	10.7	0.5	0.4	3.74%
First-line Supervisors	46.8	0.2	0.2	0.43%
Other Job Categories	79.9	3.1	2.4	3.00%

Number Of Drug Testing Systems = 45

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-55
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Reason For Testing, For All Systems (Q. - 24)

Alcohol Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	122.9	3.6	1.5	1.22%
Postaccident Tests	91.3	2.8	1.7	1.86%
Reasonable Cause Tests	21.0	3.4	2.8	13.33%
Return-To-Duty Tests	113.9	3.0	1.5	1.32%
Periodic Tests	375 .0	2.3	0.8	0.21%
Completely Random Tests	364 .0	0.9	0.5	0.14%

Number Of Drug Testing Systems = 177

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-55
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Reason For Testing, For All Systems (Q. - 24)

Alcohol Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	122.9	3.6	1.5	1.22%
Postaccident Tests	91.3	2.8	1.7	1.86%
Reasonable Cause Tests	21.0	3.4	2.8	13.33%
Return-To-Duty Tests	113.9	3.0	1.5	1.32%
Periodic Tests	375 .0	2.3	0.8	0.21%
Completely Random Tests	364 .0	0.9	0.5	0.14%

Number Of Drug Testing Systems = 177

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-57
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 51 To 100 Employees (Q. - 24)

Alcohol Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	13.7	0.3	0.2	1.46%
Postaccident Tests	6.6	0.3	0.3	4.54%
Reasonable Cause Tests	2.8			
Return-To-Duty Tests	4.1			
Periodic Tests	42.0	0.1	0.1	0.24%
Completely Random Tests	4.0			

Number Of Drug Testing Systems = 32

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-58
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 101 To 150 Employees (Q. - 24)

Alcohol Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	36.0	0.6	0.6	1.66%
Postaccident Tests	2.7		-	-
Reasonable Cause Tests	1.5	0.5	0.5	33.30%
Return-To-Duty Tests	5.5	0.5	0.5	9.09%
Periodic Tests	35 .0		-	-
Completely Random Tests			-	-

Number Of Drug Testing Systems = 25

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-59
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 151 To 200 Employees (Q. - 24)

Alcohol Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	37.3	0.6	0.6	1.61%
Postaccident Tests	2.3	-	-	
Reasonable Cause Tests	2.0	0.3	0.2	10.0%
Return-To-Duty Tests	5.5		-	-
Periodic Tests	24.0		-	-
Completely Random Tests	-	-	-	-

Number Of Drug Testing Systems = 14

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-60
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 201 To 499 Employees (Q. - 24)

Alcohol Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	96.8	1.2		
Postaccident Tests	6.8	0.1	0.1	1.47%
Reasonable Cause Tests	2.6	0.4	0.4	15.40%
Return-To-Duty Tests	15.7		-	-
Periodic Tests	65 .0	2.7	2.7	4.15%
Completely Random Tests	370 .0	4.0		

Number Of Drug Testing Systems = 22

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-60
Mean Number Of Alcohol Tests Submitted And Showing Positive Results By Reason For Testing, For Systems With 201 To 499 Employees (Q. - 24)

Alcohol Testing Categories	Samples Submitted	Lab Confirmed Positive	MRO Verified	Verified/ Submitted
Preemployment Tests	96.8	1.2		
Postaccident Tests	6.8	0.1	0.1	1.47%
Reasonable Cause Tests	2.6	0.4	0.4	15.40%
Return-To-Duty Tests	15.7		-	-
Periodic Tests	65 .0	2.7	2.7	4.15%
Completely Random Tests	370 .0	4.0		

Number Of Drug Testing Systems = 22

MRO - Medical Review Officer

Source: Transit Agency Substance Abuse Survey

NOTE: Means are based on individual respondents to each line category, therefore the total mean will slightly differ due to a change in the base number of respondents.

Table A-62
Mean Number Of Laboratory Confirmed Positive Drug And/Or Alcohol Tests By Job Title And Substance, For All Systems, During Calendar Year 1990 (Q. - 27)

(Summary)

Employee Job Titles	Alcohol	Marijuana	Opiates	Amphet-amines	Cocaine	Barbit-urates	Benzo-diazepines	PCP	Other Drugs	Multiple Drugs	Drugs and Alcohol
Vehicle Operators	0.5	1.2	0.5	0.1	2.3	0.5	0.3	0.1	0.4	0.2	0.1
Vehicle Maintainers	0.2	0.4	0.1	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.0
Other Maintainers	3.0	7.2	6.6	1.3	15.6	3.8	2.9	0.3	3.8	0.4	0.4
Support/Supervisory	1.0	2.2	1.6	0.3	4.1	0.9	0.8	0.1	1.5	0.2	0.2

Number Of Systems Drug And/Or Alcohol Testing = 415

Source: Transit Agency Substance Abuse Survey

Table A-62
Mean Number Of Laboratory Confirmed Positive Drug And/Or Alcohol Tests By Job Title And Substance, For All Systems, During Calendar Year 1990 (Q. - 27)

(Summary)

Employee Job Titles	Alcohol	Marijuana	Opiates	Amphet-amines	Cocaine	Barbit-urates	Benzo-diazepines	PCP	Other Drugs	Multiple Drugs	Drugs and Alcohol
Vehicle Operators	0.5	1.2	0.5	0.1	2.3	0.5	0.3	0.1	0.4	0.2	0.1
Vehicle Maintainers	0.2	0.4	0.1	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.0
Other Maintainers	3.0	7.2	6.6	1.3	15.6	3.8	2.9	0.3	3.8	0.4	0.4
Support/Supervisory	1.0	2.2	1.6	0.3	4.1	0.9	0.8	0.1	1.5	0.2	0.2

Number Of Systems Drug And/Or Alcohol Testing = 415

Source: Transit Agency Substance Abuse Survey

Table A-64
Mean Number Of Laboratory Confirmed Positive Drug And/or Alcohol Tests By Job Title And Substance, For Systems With 51 To 100 Employees, During Calendar Year 1990 (Q. - 27)

	Alcohol	Marijuana	Opiates	Amphet-amines	Cocaine	Barbit-urates	Benzo-diazepines	PCP	Other Drugs	Multiple Drugs	Drugs and Alcohol
Vehicle Operators	0.1	0.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Maintainers	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Maintainers	0.2	0.6	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Support/Supervisory	0.2	0.5	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

Number Of Systems Drug And/Or Alcohol Testing = 77

Source: Transit Agency Substance Abuse Survey

Table A-64
Mean Number Of Laboratory Confirmed Positive Drug And/or Alcohol Tests By Job Title And Substance, For Systems With 51 To 100 Employees, During Calendar Year 1990 (Q. - 27)

	Alcohol	Marijuana	Opiates	Amphet-amines	Cocaine	Barbit-urates	Benzo-diazepines	PCP	Other Drugs	Multiple Drugs	Drugs and Alcohol
Vehicle Operators	0.1	0.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Maintainers	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Maintainers	0.2	0.6	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Support/Supervisory	0.2	0.5	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

Number Of Systems Drug And/Or Alcohol Testing = 77

Source: Transit Agency Substance Abuse Survey

Table A-66
Mean Number Of Laboratory Confirmed Positive Drug And/or Alcohol Tests By Job Title And Substance, For Systems With 151 To 200 Employees, During Calendar Year 1990 (Q. - 27)

	Alcohol	Marijuana	Opiates	Amphet-amines	Cocaine	Barbit-urates	Benzo-diazepines	PCP	Other Drugs	Multiple Drugs	Drugs and Alcohol
Vehicle Operators	0.4	0.7	0.0	0.0	0.6	0.1	0.0	0.0	0.0	0.5	0.1
Vehicle Maintainers	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Maintainers	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Support/Supervisory	0.7	1.1	0.0	0.0	0.7	0.1	0.0	0.0	0.0	0.5	0.1

Number Of Systems Drug And/Or Alcohol Testing = 33

Source: Transit Agency Substance Abuse Survey

Table A-67
Mean Number Of Laboratory Confirmed Positive Drug And/or Alcohol Tests By Job Title And Substance, For Systems With 201 To 499 Employees, During Calendar Year 1990 (Q. - 27)

	Alcohol	Marijuana	Opiates	Amphet-amines	Cocaine	Barbit-urates	Benzo-diazepines	PCP	Other Drugs	Multiple Drugs	Drugs and Alcohol
Vehicle Operators	0.1	0.7	0.0	0.1	0.6	0.1	0.0	0.0	0.0	0.1	0.1
Vehicle Maintainers	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Other Maintainers	0.0	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.1	0.2
Support/Supervisory	0.1	0.8	0.0	0.1	0.7	0.1	0.1	0.0	0.0	0.1	0.1

Number Of Systems Drug And/Or Alcohol Testing = 48

Source: Transit Agency Substance Abuse Survey

Table A-67
Mean Number Of Laboratory Confirmed Positive Drug And/or Alcohol Tests By Job Title And Substance, For Systems With 201 To 499 Employees, During Calendar Year 1990 (Q. - 27)

	Alcohol	Marijuana	Opiates	Amphet-amines	Cocaine	Barbit-urates	Benzo-diazepines	PCP	Other Drugs	Multiple Drugs	Drugs and Alcohol
Vehicle Operators	0.1	0.7	0.0	0.1	0.6	0.1	0.0	0.0	0.0	0.1	0.1
Vehicle Maintainers	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Other Maintainers	0.0	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.1	0.2
Support/Supervisory	0.1	0.8	0.0	0.1	0.7	0.1	0.1	0.0	0.0	0.1	0.1

Number Of Systems Drug And/Or Alcohol Testing = 48

Source: Transit Agency Substance Abuse Survey

Table A-69
Mean Number Of Laboratory Confirmed Positive Drug And/or Alcohol Tests By Job Title And Substance During Calendar Year 1990, For Systems That Have Had A Substance Accident (Q. - 27 & 34)

	Alcohol	Marijuana	Opiates	Amphet-amines	Cocaine	Barbit-urates	Benzo-diazepines	PCP	Other Drugs	Multiple Drugs	Drugs and Alcohol
Vehicle Operators	2.5	7.4	5.1	0.4	18.4	4.7	2.9	0.4	1.3	1.0	0.4
Vehicle Maintainers	0.6	3.3	1.3	0.0	2.0	0.4	0.8	0.0	0.3	0.0	0.1
Signal Maintainers	9.3	28.2	29.3	5.7	64.9	15.8	11.8	1.2	8.1	1.7	1.3
Power Distribution Maintainers	4.8	13.6	13.2	2.6	29.5	8.4	6.6	0.6	5.4	0.9	0.8

Number Of Systems Drug And/Or Alcohol Testing With Substance Abuse Accident = 52

Table A-69
Mean Number Of Laboratory Confirmed Positive Drug And/or Alcohol Tests By Job Title And Substance During Calendar Year 1990, For Systems That Have Had A Substance Accident (Q. - 27 & 34)

	Alcohol	Marijuana	Opiates	Amphet-amines	Cocaine	Barbit-urates	Benzo-diazepines	PCP	Other Drugs	Multiple Drugs	Drugs and Alcohol
Vehicle Operators	2.5	7.4	5.1	0.4	18.4	4.7	2.9	0.4	1.3	1.0	0.4
Vehicle Maintainers	0.6	3.3	1.3	0.0	2.0	0.4	0.8	0.0	0.3	0.0	0.1
Signal Maintainers	9.3	28.2	29.3	5.7	64.9	15.8	11.8	1.2	8.1	1.7	1.3
Power Distribution Maintainers	4.8	13.6	13.2	2.6	29.5	8.4	6.6	0.6	5.4	0.9	0.8

Number Of Systems Drug And/Or Alcohol Testing With Substance Abuse Accident = 52

Appendix B

Transit Employee Survey Questionnaire and Results

SECTION 1

Please write your answers only on the answer sheet. Make sure that you are using the right row for the question, and blacken the box with the code number for the answer you want to give.

First, something about you and your work experiences...

1. Please fill in the circle of the number that best describes your job title or responsibilities:

Vehicle Operator , , , 1
Vehicle Maintainer. , , 2
Signal Maintainer. . . 3
Power Distribution Maintainer. . . 4
Other Equipment Maintainer , , . 5
Inspector. . , 6
Tower-man/Switchman , , . 7
Police or Security Officer. . , 8
Dispatcher/Controller. . . 9
First Line Supervisor. . .10

2. Have you ever been tested for drug or alcohol use by any employer other than your current employer?

Yes, once, . . 1
Yes, more than once . . . 2
No, never. . . 3

3. When you applied for this job, did this transit system require you to a drug or alcohol test as part of the application process?

Yes. . . 1
No.. . . 2
Don't recall . . . 3

4. Since you were hired for this job, have you yourself been tested for drug or alcohol use by this transit system?

Yes, once. . . 1
Yes, more than once. . . 2
No, never. . . 3

SECTION 1

Please write your answers only on the answer sheet. Make sure that you are using the right row for the question, and blacken the box with the code number for the answer you want to give.

First, something about you and your work experiences...

1. Please fill in the circle of the number that best describes your job title or responsibilities:

Vehicle Operator , , , 1
Vehicle Maintainer. , , 2
Signal Maintainer. . . 3
Power Distribution Maintainer. . . 4
Other Equipment Maintainer , , . 5
Inspector. . , 6
Tower-man/Switchman , , . 7
Police or Security Officer. . , 8
Dispatcher/Controller. . . 9
First Line Supervisor. . .10

2. Have you ever been tested for drug or alcohol use by any employer other than your current employer?

Yes, once, . . 1
Yes, more than once . . . 2
No, never. . . 3

3. When you applied for this job, did this transit system require you to a drug or alcohol test as part of the application process?

Yes. . . 1
No.. . . 2
Don't recall . . . 3

4. Since you were hired for this job, have you yourself been tested for drug or alcohol use by this transit system?

Yes, once. . . 1
Yes, more than once. . . 2
No, never. . . 3

8. When this happens, which of the following drugs are most likely to be involved? (please indicate as many numbers as apply; if you have not seen or heard about drug use at your transit system, please indicate "11" on the answer sheet)

Cocaine or crack , , , 1

Heroin . . . 2

Sedatives - barbiturates, sleeping pills, Seconal ("downers") . . . 3

Tranquilizers - antianxiety drugs like Librium, Valium, Ativan, Meprobamate, Xanax . . . 4

Stimulants - amphetamines, Preludin ("uppers," "speed," "crank," "ice") . . . 5

Analgesics - pain killers like Darvon, Demerol, Percodan, Tylenol with codeine . . . 6

Marijuana, hashish, grass . . . 7

Inhalants - glue, amyl nitrite, "poppers," aerosol sprays, etc. . . . 8

Hallucinogens - LSD, PCP, peyote, DMT, mescalin XTC ("ecstasy") etc. . . . 9

Other opiates - morphine, codeine . . . 10

Have not seen or heard of drug use on this job . . . 11

9. If someone in a safety-sensitive position (like a driver or inspector) seemed to you to be unfit for duty because of drugs or alcohol, what would you be most likely to do, either alone or with some co-workers? (Please select the one thing that you would most probably do)

Report that person to a supervisor . . . 1

Report that person to a shop steward or other union official . . . 2

Try to get that person to not work that shift . . . 3

Keep an eye on that person if I could . . . 4

Do nothing about it. . . 5

8. When this happens, which of the following drugs are most likely to be involved? (please indicate as many numbers as apply; if you have not seen or heard about drug use at your transit system, please indicate "11" on the answer sheet)

Cocaine or crack , , , 1

Heroin . . . 2

Sedatives - barbiturates, sleeping pills, Seconal ("downers") . . . 3

Tranquilizers - antianxiety drugs like Librium, Valium, Ativan, Meprobamate, Xanax . . . 4

Stimulants - amphetamines, Preludin ("uppers," "speed," "crank," "ice") . . . 5

Analgesics - pain killers like Darvon, Demerol, Percodan, Tylenol with codeine . . . 6

Marijuana, hashish, grass . . . 7

Inhalants - glue, amyl nitrite, "poppers," aerosol sprays, etc. . . . 8

Hallucinogens - LSD, PCP, peyote, DMT, mescalin XTC ("ecstasy") etc. . . . 9

Other opiates - morphine, codeine . . . 10

Have not seen or heard of drug use on this job . . . 11

9. If someone in a safety-sensitive position (like a driver or inspector) seemed to you to be unfit for duty because of drugs or alcohol, what would you be most likely to do, either alone or with some co-workers? (Please select the one thing that you would most probably do)

Report that person to a supervisor . . . 1

Report that person to a shop steward or other union official . . . 2

Try to get that person to not work that shift . . . 3

Keep an eye on that person if I could . . . 4

Do nothing about it. . . 5

4. On those days that you drank during the past 30 days, about how many drinks did you usually have in a day? (By a drink we mean a can or bottle of beer, a glass of wine, a shot glass of hard liquor, or a mixed drink, like a glass of gin and tonic)

1 or 2 drinks . . . 1
3 to 5 drinks . . . 2
6 to 8 drinks . . . 3
9 or 10 drinks . . . 4
More than 10 drinks . . . 5
Did not drink alcohol in last 30 days . . . 6

Now, drugs; these would include prescription-type drugs such as pain killers, stimulants ("uppers") and sedatives ("downers"), as well as other street drugs like marijuana, cocaine, heroin, "angel dust," etc. It also includes products that can be inhaled to get a high, like certain glues or sprays.

SECTION 3

As with the previous group of questions, please be sure to answer *every* question, even if it is only to say that it does not apply

1. Which of these best describes your drug usage? (Use the ONE code that best describes you)

Only use when I'm off duty and not going to be on duty for at least 5 hours . . . 1
Only use when I'm off duty, but sometimes within 5 hours of going on duty . . . 2
Sometimes use when I'm on a meal or other break on the job, but never to the point of affecting my performance . . . 3
Sometimes use when I'm actually on duty, but never to the point of affecting my performance . . . 4
Sometimes use when I'm on duty, and sometimes I get high from it . . . 5
Never used drugs for non-medical reasons . . . 6
Used drugs, but either do not use them at all now, or do not use them as often as once a month now . . . 7

4. On those days that you drank during the past 30 days, about how many drinks did you usually have in a day? (By a drink we mean a can or bottle of beer, a glass of wine, a shot glass of hard liquor, or a mixed drink, like a glass of gin and tonic)

1 or 2 drinks . . . 1
3 to 5 drinks . . . 2
6 to 8 drinks . . . 3
9 or 10 drinks . . . 4
More than 10 drinks . . . 5
Did not drink alcohol in last 30 days . . . 6

Now, drugs; these would include prescription-type drugs such as pain killers, stimulants ("uppers") and sedatives ("downers"), as well as other street drugs like marijuana, cocaine, heroin, "angel dust," etc. It also includes products that can be inhaled to get a high, like certain glues or sprays.

SECTION 3

As with the previous group of questions, please be sure to answer *every* question, even if it is only to say that it does not apply

1. Which of these best describes your drug usage? (Use the ONE code that best describes you)

Only use when I'm off duty and not going to be on duty for at least 5 hours . . . 1
Only use when I'm off duty, but sometimes within 5 hours of going on duty . . . 2
Sometimes use when I'm on a meal or other break on the job, but never to the point of affecting my performance . . . 3
Sometimes use when I'm actually on duty, but never to the point of affecting my performance . . . 4
Sometimes use when I'm on duty, and sometimes I get high from it . . . 5
Never used drugs for non-medical reasons . . . 6
Used drugs, but either do not use them at all now, or do not use them as often as once a month now . . . 7

5. Which if any of the following drugs have you used in the last 30 days? Please give an answer for every line, whether you have used that drug or not; use ONE CODE for each item.

CODES: l=Daily, **2=Weekly** or Monthly, **3=None** in last 30 days

	Daily	Weekly	None
a. Cocaineorcrack	1	2	3
b. Heroin	1	2	3
c. Sedatives - barbiturates, sleeping pills, Seconal (“downers”)	1	2	3
d. Tranquilizers - antianxiety drugs like Librium, Valium, **Ativan,** Meprobamate, Xanax	1	2	3
e. Stimulants - amphetamines, Preludin (“uppers,” “speed,” “crank,” “ice”)	1	2	3
f. Analgesics - pain killers like Darvon, Demerol, Percodan, Tylenol with codeine	1	2	3
g. Marijuana, hashish, grass	1	2	3
h. Inhalants - glue, amyl nitrite, “poppers,” aerosol sprays, etc.	1	2	3
i. Hallucinogens - LSD, PCP, peyote, DMT, mescalin XTC (“ecstasy”) etc.	1	2	3
j. Other opiates - morphine, codeine	1	2	3
k. Haven’t used drugs in the last 30 days or longer,			3

SECTION 4

Now, just two final questions about this study...

1. How did you feel about filling out this questionnaire; would you say that you:

liked filling it out . . , 1

Didn’t care one way or the other about filling it out , . , 2

did not likefillingit out. . , 3

5. Which if any of the following drugs have you used in the last 30 days? Please give an answer for every line, whether you have used that drug or not; use ONE CODE for each item.

CODES: l=Daily, **2=Weekly** or Monthly, **3=None** in last 30 days

	Daily	Weekly	None
a. Cocaineorcrack	1	2	3
b. Heroin	1	2	3
c. Sedatives - barbiturates, sleeping pills, Seconal (“downers”)	1	2	3
d. Tranquilizers - antianxiety drugs like Librium, Valium, **Ativan,** Meprobamate, Xanax	1	2	3
e. Stimulants - amphetamines, Preludin (“uppers,” “speed,” “crank,” “ice”)	1	2	3
f. Analgesics - pain killers like Darvon, Demerol, Percodan, Tylenol with codeine	1	2	3
g. Marijuana, hashish, grass	1	2	3
h. Inhalants - glue, amyl nitrite, “poppers,” aerosol sprays, etc.	1	2	3
i. Hallucinogens - LSD, PCP, peyote, DMT, mescalin XTC (“ecstasy”) etc.	1	2	3
j. Other opiates - morphine, codeine	1	2	3
k. Haven’t used drugs in the last 30 days or longer,			3

SECTION 4

Now, just two final questions about this study...

1. How did you feel about filling out this questionnaire; would you say that you:

liked filling it out . . , 1

Didn’t care one way or the other about filling it out , . , 2

did not likefillingit out. . , 3

3.) When you applied for this job, did this transit system require you to a drug or alcohol test as part of the application process?

	FREQUENCY	PERCENT
Yes	39,499	32.59%
No	67,718	55.87%
Don't recall	13,996	11.55%
Total	121,213	100.00%

Excluding Don't Recall:

Yes	39,499	36.84%
No	67,718	63.16%
Total	107,217	100.00%

4.) Since you were hired for this job, have you yourself been tested for drug or alcohol use by this transit system?

	FREQUENCY	PERCENT
Yes, once	22,116	18.37%
Yes, more than once	26,071	21.65%
No, never	72,222	59.98%
Total	120,409	100.00%

3.) When you applied for this job, did this transit system require you to a drug or alcohol test as part of the application process?

	FREQUENCY	PERCENT
Yes	39,499	32.59%
No	67,718	55.87%
Don't recall	13,996	11.55%
Total	121,213	100.00%

Excluding Don't Recall:

Yes	39,499	36.84%
No	67,718	63.16%
Total	107,217	100.00%

4.) Since you were hired for this job, have you yourself been tested for drug or alcohol use by this transit system?

	FREQUENCY	PERCENT
Yes, once	22,116	18.37%
Yes, more than once	26,071	21.65%
No, never	72,222	59.98%
Total	120,409	100.00%

7.) Over the past 12 months, how often have you seen or heard about co-workers having difficulty doing a good job on this transit system because of their use of drugs (for example, doing drugs while on duty or working while coming down from a high); would you say:

	FREQUENCY	PERCENT
It happens quite frequently	9,011	7.54%
It happens sometimes	23,719	19.84%
It happens rarely	39,793	33.28%
It has never happened	47,049	39.35%
Total	119,572	100.00%

8.) When this happens, which of the following drugs are most likely to be involved? (please indicate as many numbers as apply; if you have not seen or heard about drug use at your transit system, please indicate "11" on the answer sheet)

	FREQUENCY	PERCENT
Have Seen Or Heard	60,383	52.05%
Have Not Seen Or Heard	55,625	47.95%
Total	116,008	100.00%

Of Those Who Have Seen Or Heard, the Following Drugs Were Involved:

	FREQUENCY	PERCENT OF THOSE KNOWING	PERCENT OF DRUGS NOTED
Cocaine or crack	37,422	61.97%	37.00%
Heroin	2,862	4.74%	2.83%
Sedatives - barbiturates, sleeping pills, Seconal ("downers")	3,964	6.56%	3.92%
Tranquilizers - antianxiety drugs like Librium, Valium, Ativan, Meprobamate, Xanax	5,257	8.71%	5.20%
Stimulants - amphetamines, Preludin			

7.) Over the past 12 months, how often have you seen or heard about co-workers having difficulty doing a good job on this transit system because of their use of drugs (for example, doing drugs while on duty or working while coming down from a high); would you say:

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Stimulants - amphetamines, Preludin			

SECTION 2

1.) Which of these best describes your drinking habits? (Use the ONE code that best describes you)

	FREQUENCY	PERCENT
Only drink when I'm off duty and not going to be on duty for at least 5 hours	38,493	32.16%
Only drink when I'm off duty, but sometimes within 5 hours of going on duty	3,642	3.04%
Sometimes drink when I'm on a meal or other break on the job, but never to the point of affecting my performance	1,581	1.32%
Sometimes drink when I'm actually on duty, but never to the point of affecting my performance	734	.61%
Sometimes drink when I'm on duty, and sometimes I get drunk	972	.81%
Never drank alcohol	31,942	26.69%
Drank alcohol, but either do not drink at all now, or do not drink as often as once a month now	42,325	35.36%
Total	119,689	100.00%

SECTION 2

1.) Which of these best describes your drinking habits? (Use the ONE code that best describes you)

	FREQUENCY	PERCENT
Only drink when I'm off duty and not going to be on duty for at least 5 hours	38,493	32.16%
Only drink when I'm off duty, but sometimes within 5 hours of going on duty	3,642	3.04%
Sometimes drink when I'm on a meal or other break on the job, but never to the point of affecting my performance	1,581	1.32%
Sometimes drink when I'm actually on duty, but never to the point of affecting my performance	734	.61%
Sometimes drink when I'm on duty, and sometimes I get drunk	972	.81%
Never drank alcohol	31,942	26.69%
Drank alcohol, but either do not drink at all now, or do not drink as often as once a month now	42,325	35.36%
Total	119,689	100.00%

SECTION 3

1.) Which of these best describes your drug usage? (Use the ONE code that best describes you)

	FREQUENCY	PERCENT
Only use when I'm off duty and not going to be on duty for at least 5 hours	4,948	4.11%
Only use when I'm off duty, but sometimes within 5 hours of going on duty	950	.79%
Sometimes use when I'm on a meal or other break on the job, but never to the point of affecting my performance	1,138	.94%
Sometimes use when I'm actually on duty, but never to the point of affecting my performance	412	.34%
Sometimes use when I'm on duty, and sometimes I get high from it	892	.74%
Never used drugs for non-medical reasons	98,120	81.41%
Used drugs, but either do not use them at all now, or do not use them as often as once a month now	14,065	11.67%
Total	120,525	100.00%

SECTION 3

1.) Which of these best describes your drug usage? (Use the ONE code that best describes you)

	FREQUENCY	PERCENT
Only use when I'm off duty and not going to be on duty for at least 5 hours	4,948	4.11%
Only use when I'm off duty, but sometimes within 5 hours of going on duty	950	.79%
Sometimes use when I'm on a meal or other break on the job, but never to the point of affecting my performance	1,138	.94%
Sometimes use when I'm actually on duty, but never to the point of affecting my performance	412	.34%
Sometimes use when I'm on duty, and sometimes I get high from it	892	.74%
Never used drugs for non-medical reasons	98,120	81.41%
Used drugs, but either do not use them at all now, or do not use them as often as once a month now	14,065	11.67%
Total	120,525	100.00%

5.) Which if any of the following drugs have you used in the last 30 days? Please give an answer for every line, whether you have used that drug or not; use one code for each item.

CODES: 1=Daily, 2=Weekly or Monthly, 3=None in last 30 days

DAILY USAGE:

		FREQUENCY	*PERCENT
a.	Cocaine or crack	1,339	1.16%
b.	Heroin	583	.51%
c.	Sedatives - barbiturates, sleeping pills, Seconal ("downers")	1,379	1.20%
d.	Tranquilizers - antianxiety drugs like Librium, Valium, Ativan, Meprobamate, Xanax	9 0 6	.79%
e.	Stimulants - amphetamines, Preludin ("uppers," "speed," "crank," "ice")	652	.57%
f.	Analgesics - pain killers like Darvon, Demerol, Percodan, Tylenol with codeine	1,718	1.49%
g.	Marijuana, hashish, grass	1,178	1.02%
h.	Inhalants - glue, amyl nitrite, "poppers," aerosol sprays, etc.	726	.63%
i.	Hallucinogens - LSD, PCP, peyote, DMT, mescalin XTC ("ecstasy") etc.	554	.48%
j.	Other opiates - morphine, codeine	683	.59%
k.	Haven't used drugs in the last 30 days or longer	---	---

* PERCENTS CALCULATED BY DIVIDING FREQUENCIES BY TOTAL RESPONDENTS TO THIS QUESTION (115,045)

5.) Which if any of the following drugs have you used in the last 30 days? Please give an answer for every line, whether you have used that drug or not; use one code for each item.

CODES: 1=Daily, 2=Weekly or Monthly, 3=None in last 30 days

DAILY USAGE:

		FREQUENCY	*PERCENT
a.	Cocaine or crack	1,339	1.16%
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* PERCENTS CALCULATED BY DIVIDING FREQUENCIES BY TOTAL RESPONDENTS TO THIS QUESTION (115,045)

NONE - NO USAGE:

		FREQUENCY	*PERCENT
a.	Cocaine or crack	99,088	97.25%
b.	Heroin	98,441	98.08%
c.	Sedatives - barbiturates, sleeping pills, Seconal ("downers")	97,644	97.90%
d.	Tranquilizers - antianxiety drugs like Librium, Valium, **Ativan,** Meprobamate, Xanax Valium, **Ativan,** Meprobamate, Xanax	97,300	98.30%
e.	Stimulants - amphetamines, Preludin ("uppers," "speed," "crank," "ice")	97,564	98.40%
f.	Analgesics - pain killers like Darvon, Demerol, Percodan, Tylenol with codeine	93,111	94.46%
g.	Marijuana, hashish, grass	97,010	97.46%
h.	Inhalants - glue, amyl nitrite, "poppers," aerosol sprays, etc.	97,872	98.91%
i.	Hallucinogens - LSD, PCP, peyote, DMT, **mescalin** XTC ("ecstasy") etc.	98,128	98.89%
j.	Other opiates - morphine, codeine	97,614	98.54%
k.	Haven't used drugs in the last 30 days or longer	100,071	86.98%

* PERCENT FOR ANSWER (k.) CALCULATED BY DIVIDING FREQUENCY BY TOTAL RESPONDENTS TO THIS QUESTION (115,045). PERCENTS FOR ANSWERS (a. - j.) CALCULATED BY SUBTRACTING SUM OF DAILY AND WEEKLY USAGE FROM 100%.

NONE - NO USAGE:

		FREQUENCY	*PERCENT
a.	Cocaine or crack	99,088	97.25%
b.	Heroin	98,441	98.08%
c.	Sedatives - barbiturates, sleeping pills, Seconal ("downers")	97,644	97.90%
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TRANSIT AGENCY DATABASE
RANKED BY RIDERSHIP

TRANSIT AGENCY DATABASE
RANKED BY RIDERSHIP

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTR'S
STRATUM 1												
NYCTA	1											
MB		753,030.2	1,514,915.3	94,675.j	8,014.8	224.9	2,081.8	711.7	474.6	11,507.8		14,842.7
RR		1,702,610.8	7,376,120.5	312,194.6	4,937.2	1,027.1	2,272.9	1,565.0	6,992.5	16,794.7		28,539.1
TOTAL		2,455,641.0	8,891,035.8	406,870.4	12,952.0	1,252.0	4,354.7	2,276.7	7,467.1		28,302.5	43,381.8
CTA	2											
MB		420.5727	1,034,121.7	72,798.5	4,085.3	386.3	768.5	474.1	383.8	6,098.0		7,057.2
RR		168,658.8	1,050,921.7	54,630.1	886.6	1,198.8	383.4	191.3	842.2	3,508.3		4,207.5
TOTAL		589,231.5	2,085,043.4	127,428.6	4,971.9	1,585.1	1,151.9	671.4	1,226.0		9,606.3	11,264.7
SCRTD	3											
MB		411,820.0	1,648,700.0	86,149.7	4,439.2	134.4	1,032.6	422.5	253.4	6,282.1		7,706.8
TOTAL		411,820.0	1,648,700.0	86,149.7	4,439.2	134.4	1,032.6	422.5	253.4		6,282.1	7,706.8
WMATA	4											
MB		169437.9	530498.1	39,350.2	2,517.5	101.0	652.9	147.5	138.3	3,557.2		4,410.1
RR		183,479.6	978,315.0	32,859.0	358.0	361.8	525.4	76.5	1,033.2	2,354.9		3,444.1
TOTAL		352,917.5	1,508,813.7	72,209.2	2,875.5	462.8	1,178.3	224.0	1,171.5		5,912.1	7,854.2
SEPTA	5											
MB		186,820.3	491,684.4	1,859.6	2,411.0	54.8	599.4	126.5	87.4	3,279.1		4,036.5
RR		94,099.9	415,800.4	35,151.0	293.3	407.0	347.5	108.6	380.9	1,537.3		1,996.9
SC		46,593.7	104,612.3	16,275.7	350.0	23.0	170.6	31.2	298.9	873.7		1,234.5
TB		13,355.5	21,132.2	4,831.5	134.2	11.4	91.0	10.1	36.0	282.7		394.1
TOTAL		340,869.4	1,033,229.3	58,117.8	3,188.5	496.2	1,208.5	276.4	803.2		5,972.8	7,662.0
MBTA	6											
MB		99,609.0	232,547.7	13,239.1	1,233.0	177.0	302.0	77.0	149.0	1,938.0		2,478.0
RR		157.937.6	480,184.7	21,857.5	602.0	221.0	220.0	209.0	504.0	1,756.0		2,811.0
SC		20,499.9	28,754.5	1,183.8	61.0	19.0	37.0	18.0	86.0	221.0		303.0
TB		3,512.0	8,454.2	742.0	67.0	10.0	11.0	10.0	10.0	108.0		138.0
TOTAL		281,558.5	749,941.1	47,023.0	1,963.0	427.0	570.0	314.0	749.0		4,003.0	5,730.9
NJT	7											
MB		123,774.8	911,149.1	60,958.4	2,523.6	195.5	627.8	273.5	18.2	3,698.6		4,529.8
SC		4,064.9	8,130.9	622.0	21.0	1.7	22.6	5.1	0.4	50.8		59.0
TOTAL		127,839.7	919,280.0	61,580.4	2,544.6	197.2	650.4	278.6	78.6		3,749.4	4,588.8
MUNI	8											
CC		14493.6	11,861.2	554.1	152.0	15.0	26.0	7.0	43.0	243.0		265.0
MB		98,983.3	209,556.4	12,702.8	849.0	67.0	229.0	73.0	47.0	1,265.0		1,442.0
SC		38,909.4	105,474.8	4,002.3	219.0	101.0	213.0	54.0	80.0	667.0		756.0
TB		87407.6	118,500.2	7,319.7	592.0	64.0	108.0	43.0	30.0	837.0		957.0
TOTAL		235,793.9	445,392.6	24,579.5	1,812.0	247.0	576.0	127.0	200.0		3,012.0	3,420.0
SUBTOTAL		***4,795,671.5***	***17,281,435.9***	***883,958.6***	***34,746.7***	***4,801.7***	***10,722.4***	***4,640.6***	***11,948.8***		***66,860.2***	***91,608.3***

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000'S) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY SENS BY MODE	WTOTAL	TOTAL FTE'S
STRATUM 2												
MARTA	9											
MB		79,502.0	271,371.1	25,362.3	1,393.0	99.0	331.0	120.0	35.0	1,978		2,383.0
RR		65,603.0	359,269.8	14,619.5	150.0	244.0	116.0	34.0	146.0	690		1,039.0
TOTAL		145,105.0	630,640.9	39,981.8	1,543.0	343.0	447.0	154.0	181.0		2,668.0	3,422.0
MTA Baltimore	10											
DR		57.8	369.8	329.9	21.6	3.2	3.1	0.0	0.0	27		34.6
MB		93,745.1	309,679.1	20,811.9	1,131.1	92.5	259.2	95.2	626	1,640		1,970.7
RR		13,983.6	66,871.0	3,530.3	31.4	48.6	44.0	14.3	123.2	261		472.2
TOTAL	6	107,786.5	376,919.9	24,672.1	1,184.1	144.3	306.3	109.5	185.8		1,930.0	2,477.5
Pittsburgh	11											
DR		127.0	122.3	30.5	4.3	0.0	0.0	0.0	5.6	9.9		9.9
MB		76,914.4	316,721.0	26,821.2	1,374.1	126.9	334.4	173.7	159.9	2,169.0		2,585.6
SC		9,044.1	63,503.3	1,987.8	120.1	34.3	69.3	33.0	94.1	350.8		428.6
TOTAL	8	86,085.5	380,346.6	28,839.5	1,498.5	161.2	403.7	206.7	259.6		2,529.7	3,024.1
Houston	12											
DR		180.8	1,879.7	2,047.3	60.4	9.4	1.21	0.0	0.1	71		81.8
MB		81,042.6	437402.1	27,753.3	1,149.0	116.9	345.5	142.5	85.4	1,839		2,591.1
TOTAL	5	81,223.4	439,281.8	29,800.6	1,209.4	126.3	346.7	142.5	85.5		1,910.4	2,672.9
Honolulu	13											
MB		72,694.5	322,870.2	14,841.1	595.5	36.9	148.6	59.6	0.8	841		970.6
TOTAL	3	72,694.5	322,870.2	14,841.1	595.5	36.9	148.6	59.6	0.8		841.4	970.6
Milwaukee	14											
MB		72,656.7	190,387.5	17,097.8	788.2	70.0	146.8	47.6	39.3	1,091		1,343.4
TOTAL		72,656.7	190,387.5	17,097.8	788.2	70.0	146.8	47.6	39.3		1,091.9	1,343.4
Seattle	15											
MB		55.031.2	348,580.6	23,349.0	1,375.5	122.4	181.0	98.6	115.1	1,892		2,482.0
SC		198.3	2031	30.7	3.2	0.3	2.6	0.7	1.9	8		10.9
TB		19,158.1	36,609:	2,744.8	235.5	21.0	19.9	10.6	24.1	311		393.3
VP		1.251..0	32,834.d	2,901 .7	0.0	0.0	0.0	0.0	0.0	0		29.4
TOTAL	3	75,638.6	418,227.4	29,026.2	1,614.2	143.7	203.5	109.9	141.1		2,212.4	2,915.6
GCRTA	16											
DR		276.9	1,218.~	883.3	40.0	17.8	12.5	4.7	1.7	76		87.9
MB		58,901.4	179,055.(	19,769.1	876.9	70.4	245.0	115.8	69.5	1,377		1,806.2
RR		7,860.1	58,041.8	1,951.7	57.4	33.9	46.1	34.6	78.2	250		347.6
SC		5,109.6	29,098.7	1,034.5	34.3	19.4	23.7	19.3	44.8	141		191.6
TOTAL		72,155.0	267,413.9	23,638.6	1,008.6	141.5	327.3	174.4	194.2		1,846.0	2,439.3

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000'S) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY SENS BY MODE	WTOTAL	TOTAL FTE'S
STRATUM 2												
MARTA	9											
MB		79,502.0	271,371.1	25,362.3	1,393.0	99.0	331.0	120.0	35.0	1,978		2,383.0
RR		65,603.0	359,269.8	14,619.5	150.0	244.0	116.0	34.0	146.0	690		1,039.0
TOTAL		145,105.0	630,640.9	39,981.8	1,543.0	343.0	447.0	154.0	181.0		2,668.0	3,422.0
MTA Baltimore	10											
DR		57.8	369.8	329.9	21.6	3.2	3.1	0.0	0.0	27		34.6
MB		93,745.1	309,679.1	20,811.9	1,131.1	92.5	259.2	95.2	626	1,640		1,970.7
RR		13,983.6	66,871.0	3,530.3	31.4	48.6	44.0	14.3	123.2	261		472.2
TOTAL	6	107,786.5	376,919.9	24,672.1	1,184.1	144.3	306.3	109.5	185.8		1,930.0	2,477.5
Pittsburgh	11											
LR		127.0	122.3	30.5	4.3	0.0	0.0	0.0	5.6	9.9		9.9
MB		76,914.4	316,721.0	26,821.2	1,374.1	126.9	334.4	173.7	159.9	2,169.0		2,585.6
SC		9,044.1	63,503.3	1,987.8	120.1	34.3	69.3	33.0	94.1	350.8		428.6
TOTAL	8	86,085.5	380,346.6	28,839.5	1,498.5	161.2	403.7	206.7	259.6		2,529.7	3,024.1
Houston	12											
DR		180.8	1,879.7	2,047.3	60.4	9.4	1.21	0.0	0.1	71		81.8
MB		81,042.6	437402.1	27,753.3	1,149.0	116.9	345.5	142.5	85.4	1,839		2,591.1
TOTAL	5	81,223.4	439,281.8	29,800.6	1,209.4	126.3	346.7	142.5	85.5		1,910.4	2,672.9
Honolulu	13											
MB		72,694.5	322,870.2	14,841.1	595.5	36.9	148.6	59.6	0.8	841		970.6
TOTAL	3	72,694.5	322,870.2	14,841.1	595.5	36.9	148.6	59.6	0.8		841.4	970.6
Milwaukee	14											
MB		72,656.7	190,387.5	17,097.8	788.2	70.0	146.8	47.6	39.3	1,091		1,343.4
TOTAL		72,656.7	190,387.5	17,097.8	788.2	70.0	146.8	47.6	39.3		1,091.9	1,343.4
Seattle	15											
MB		55.031.2	348,580.6	23,349.0	1,375.5	122.4	181.0	98.6	115.1	1,892		2,482.0
SC		198.3	2031	30.7	3.2	0.3	2.6	0.7	1.9	8		10.9
TB		19,158.1	36,609:	2,744.8	235.5	21.0	19.9	10.6	24.1	311		393.3
VP		1.251..0	32,834.d	2,901 .7	0.0	0.0	0.0	0.0	0.0	0		29.4
TOTAL	3	75,638.6	418,227.4	29,026.2	1,614.2	143.7	203.5	109.9	141.1		2,212.4	2,915.6
GCRTA	16											
DR		276.9	1,218.~	883.3	40.0	17.8	12.5	4.7	1.7	76		87.9
MB		58,901.4	179,055.(	19,769.1	876.9	70.4	245.0	115.8	69.5	1,377		1,806.2
RR		7,860.1	58,041.8	1,951.7	57.4	33.9	46.1	34.6	78.2	250		347.6
SC		5,109.6	29,098.7	1,034.5	34.3	19.4	23.7	19.3	44.8	141		191.6
TOTAL		72,155.0	267,413.9	23,638.6	1,008.6	141.5	327.3	174.4	194.2		1,846.0	2,439.3

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000'S) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
DART	27											
MB		41,760.1	168433.8	16,509.1	769.7	41.8	259.0	78.9	62.1	1,211.5		1,724.3
TOTAL		41,760.1	168,433.8	16,509.1	769.7	41.8	259.0	78.9	62.1		1,211.5	1,724.3
San Antonio	28											
DR		148.4	1,821.8	1,690.3	48.3	7.2	2.9	0.8	0.4	59.6		68.9
MB		39,117.8	152,321.3	16,609.3	659.5	35.9	115.5	34.9	48.7	894,5		1,068.7
TOTAL		39,266.2	154,143.1	16,299.6	707.8	43.1	118.4	35.7	49.1		954.1	1,137.6
Orange Co	29											
MB		38,534.2	167,430.1	15,575.8	711.8	39.4	111.5	60.6	15.4	938.1		1,297.7
VP		6.1	293.6	50.7	0.0	0.0	0.5	0.5	0.0	1.0		3.5
TOTAL		38,540.3	167,723.7	15,626.5	711.8	39.4	112.0	61.1	15.4		939.7	1,301.2
Santa Clara	30											
MB		36,442.5	140,540.6	19,372.8	868.0	46.8	227.0	74.0	22.4	1,238.2		1,481.4
SC		2,007.7	6,611.5	534.4	34.0	5.0	19.2	9.4	26.0	93.6		148.8
TOTAL		38,450.2	147,152.1	19,907.2	902.0	51.8	246.2	83.4	48.4		1,331.8	1,630.2
SUBTOTAL		***1,488,760.6***	***6,587,131.0***	***487,751.0***	***20,844.5***	***2,041.9***	***5,556.9***	***2,004.0***	***2,454.3***		***32,901.6***	***42.326.5***

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000'S) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
DART	27											
MB		41,760.1	168433.8	16,509.1	769.7	41.8	259.0	78.9	62.1	1,211.5		1,724.3
TOTAL		41,760.1	168,433.8	16,509.1	769.7	41.8	259.0	78.9	62.1		1,211.5	1,724.3
San Antonio	28											
DR		148.4	1,821.8	1,690.3	48.3	7.2	2.9	0.8	0.4	59.6		68.9
MB		39,117.8	152,321.3	16,609.3	659.5	35.9	115.5	34.9	48.7	894,5		1,068.7
TOTAL		39,266.2	154,143.1	16,299.6	707.8	43.1	118.4	35.7	49.1		954.1	1,137.6
Orange Co	29											
MB		38,534.2	167,430.1	15,575.8	711.8	39.4	111.5	60.6	15.4	938.1		1,297.7
VP		6.1	293.6	50.7	0.0	0.0	0.5	0.5	0.0	1.0		3.5
TOTAL		38,540.3	167,723.7	15,626.5	711.8	39.4	112.0	61.1	15.4		939.7	1,301.2
Santa Clara	30											
MB		36,442.5	140,540.6	19,372.8	868.0	46.8	227.0	74.0	22.4	1,238.2		1,481.4
SC		2,007.7	6,611.5	534.4	34.0	5.0	19.2	9.4	26.0	93.6		148.8
TOTAL		38,450.2	147,152.1	19,907.2	902.0	51.8	246.2	83.4	48.4		1,331.8	1,630.2
SUBTOTAL		*1,488,760.6*	*6,587,131.0*	*487,751.0*	*20,844.5*	*2,041.9*	*5,556.9*	*2,004.0*	*2,454.3*		*32,901.6*	*42.326.5*

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYERS BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
SAMTRANS	41											
DR		74.5	572.5	480.9	15.8	0.0	2.1	1.8	0.0	19.7		25.2
MB		18,129.5	127,129.7	7,390.3	373.6	31.0	71.4	22.4	0.0	498.4		606.1
TOTAL		18,204.0	127,702.2	7,871.2	389.4	31.0	73.5	24.2	0.0		518.1	631.3
Kansas City	42											
MB		18,091.7	61,475.5	7,945.4	359.4	13.9	86.1	46.6	27.9	533.9		646.6
TOTAL		18,091.7	61,475.5	7,945.4	359.4	13.9	86.1	46.6	27.9		533.9	646.6
Columbus	43											
MB		17,159.4	82,788.8	7,490.9	399.2	28.4	58.6	44.6	28.8	559.6		672.2
TOTAL		17,159.4	82,788.8	7,490.9	399.2	28.4	58.6	44.6	28.8		559.6	672.2
Sacramento	44											
MB		12,959.6	57,786.3	5,863.6	295.3	9.5	46.5	22.9	14.4	388.6		522.8
SO		4,010.8	21,633.7	1,059.8	30.9	0.0	11.0	8.0	9.3	59.2		92.2
TOTAL		16,970.4	79,420.0	6,923.4	326.2	9.5	57.5	30.9	23.7		447.8	615.0
Rochester	45											
DR		142.1	1,264.4	744.2	27.0	6.0	5.0	1.0	0.0	39.0		42.0
MB		15,509.3	54,385.1	6,091.4	309.3	10.0	81.4	11.0	17.0	428.7		503.7
TOTAL		15,651.4	55,649.5	6,835.6	336.3	16.0	86.4	12.0	17.0		467.7	545.7
RI Transit	46											
MB		15,397.7	67,749.8	6,779.2	369.0	6.0	48.0	40.0	10.0	473.0		547.0
TOTAL		15,397.7	67,749.8	6,779.2	369.0	6.0	48.0	40.0	10.0		473.0	547.0
Dayton	47											
DR		21.2	112.4	71.2	5.8	0.0	0.9	0.2	0.5	7.4		12.4
MB		8,984.5	44,923.0	5,118.4	201.1	0.7	36.1	18.5	8.2	264.6		322.3
TB		6,186.3	14,493.6	1,609.5	68.9	0.5	14.8	4.9	12.9	102.0		130.1
TOTAL		15,192.0	59,529.0	6,799.1	275.8	1.2	51.8	23.6	21.6		374.0	464.8
Syracuse	48											
DR		106.3	646.5	461.6	11.3	3.3	2.0	1.5	0.7	18.8		24.6
MB		14,726.6	31,170.7	3,941.7	182.5	10.3	45.9	13.5	1.2	259.4		315.5
TOTAL		14,832.9	31,817.2	4,403.3	193.8	13.6	47.9	15.0	7.9		278.2	340.1
Broward FL	49											
MB		14,413.2	67,589.6	8,973.2	401.6	13.3	91.7	25.4	12.3	544.3		646.6
TOTAL		14,413.2	67,589.6	8,973.2	401.6	13.3	91.7	25.4	12.3		544.3	646.6
Mempbls	50											
DR		108.2	1,482.5	492.2	0.0	0.0	3.5	0.0	0.0	3.5		6.5
MB		14,170.0	58,897.4	6,354.7	249.1	2.0	44.9	24.2	8.1	328.3		394.3
TOTAL		14,278.2	60,379.9	6,846.9	249.1	2.0	48.4	24.2	8.1		331.8	400.8

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000'S) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FIX'S
Austin, TX	51											
DR		199.6	1,601.4	1,011.0	44.6	0.4	8.4	3.5	2.5	59.4		91.0
MB		13,359.4	51437.7	6,543.1	313.3	3.2	61.8	25.9	18.5	422.5		516,2
TOTAL		13,559.0	53,039.1	7,554.1	357.9	3.6	70.2	29.4	21.0		482.1	607.2
Albany	52											
DR		53.1	593.4	545.6	16.7	1.9	4.6	0.0	0.0	23.2		27.6
MB		13,214.3	46128.0	5722.0	284.0	3.0	74.4	7.0	6.0	374.4		464.5
TOTAL		13,267.4	46,721.4	6,267.	300.7	4.9	79.0	7.0	6.0		397.6	492.1
NY-Queens Surface	53											
M B		12,915.2	75,031.0	6,489.4	362.0	49.0	173.0	65.0	0.0	649.0		728.0
TOTAL		12,915.2	75,031.0	6,489.4	362.0	49.0	173.0	65.0	0.0		649.0	728.0
Tuscon	54											
DR		165.9	1,300.0	1,354.7	55.4	16.9	0.0	0.0	1.6	735		17.3
MB		12,358.7	42,976.1	5,519.2	227.0	1.0	43.0	16.0	2.0	289(		348.0
TOTAL		12,524.6	44,286.1	6,873.9	282.4	17.9	43.0	16.0	3.6		362.9	425.3
Montco, MD	55											
DR		131.8	1,005.5	297.5	30.8	0.0	3.0	0.0	1.0	34[illegible]		39.8
MB		12,223.8	42,870.5	5,138.9	299.8	0.0	54.0	2.0	45.3	401.1		450.1
TOTAL		12,355.6	43,876.0	5,436.4	330.6	0.0	57.0	2.0	46.3		435.9	489.9
San Dlego Troll.	56											
SC		11,216.6	75936.6	2,366.5	45.0	2.0	18.5	24.0	15.0	104.5		148.0
TOTAL		11,216.6	75,936.6	2,366.5	45.0	2.0	18.5	24.0	15.0		104.5	148.0
Charlotte	57											
DR		57.1	424.c	327.1	16.8	2.0	0.0	0.0	0.0	18.1		23.9
MB		14982.9	44,575.9	4,193.8	204.0	4.0	37.0	9.0	0.0	254.0		287.0
TOTAL		11,040.0	44,999.9	4,520.9	220.8	6.0	37.0	9.0	0.0		272.8	310.9
PATCO	58											
RR		11,025.3	96,730.9	4,095.7	50.0	14.0	49.8	14.0	77.3	205.1		330.6
TOTAL		11,025.3	96,730.9	4,095.7	50.0	14.0	49.8	14.0	77.3		205.1	330.6
Indianapolis	59											
DR		29.2	259.8	263.9	8.8	2.4	2.0	1.0	0.5	14.7		17.8
MB		10,780.2	49,338.7	5,447.6	245.5	18.9	42.8	27.6	13.9	348.7		419.9
TOTAL		10,809.4	49,598.5	5,711.5	254.3	21.3	44.8	28.6	14.4		363.4	437.7
Hillsborough	60											
MB		10,474.5	45,581.1	7,007.5	282.6	20.9	35.3	24.0	7.7	370.5		424.2
TOTAL		10,474.5	45,581.1	7,007.5	282.6	20.9	35.3	24.0	7.7		370.5	424.2

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000'S) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FIX'S
Austin, TX	51											
DR		199.6	1,601.4	1,011.0	44.6	0.4	8.4	3.5	2.5	59.4		91.0
MB		13,359.4	51437.7	6,543.1	313.3	3.2	61.8	25.9	18.5	422.5		516,2
TOTAL		13,559.0	53,039.1	7,554.1	357.9	3.6	70.2	29.4	21.0		482.1	607.2
Albany	52											
DR		53.1	593.4	545.6	16.7	1.9	4.6	0.0	0.0	23.2		27.6
MB		13,214.3	46128.0	5722.0	284.0	3.0	74.4	7.0	6.0	374.4		464.5
TOTAL		13,267.4	46,721.4	6,267.	300.7	4.9	79.0	7.0	6.0		397.6	492.1
NY-Queens Surface	53											
M B		12,915.2	75,031.0	6,489.4	362.0	49.0	173.0	65.0	0.0	649.0		728.0
TOTAL		12,915.2	75,031.0	6,489.4	362.0	49.0	173.0	65.0	0.0		649.0	728.0
Tuscon	54											
DR		165.9	1,300.0	1,354.7	55.4	16.9	0.0	0.0	1.6	735		17.3
MB		12,358.7	42,976.1	5,519.2	227.0	1.0	43.0	16.0	2.0	289(		348.0
TOTAL		12,524.6	44,286.1	6,873.9	282.4	17.9	43.0	16.0	3.6		362.9	425.3
Montco, MD	55											
DR		131.8	1,005.5	297.5	30.8	0.0	3.0	0.0	1.0	34[illegible]		39.8
MB		12,223.8	42,870.5	5,138.9	299.8	0.0	54.0	2.0	45.3	401.1		450.1
TOTAL		12,355.6	43,876.0	5,436.4	330.6	0.0	57.0	2.0	46.3		435.9	489.9
San Dlego Troll.	56											
SC		11,216.6	75936.6	2,366.5	45.0	2.0	18.5	24.0	15.0	104.5		148.0
TOTAL		11,216.6	75,936.6	2,366.5	45.0	2.0	18.5	24.0	15.0		104.5	148.0
Charlotte	57											
DR		57.1	424.c	327.1	16.8	2.0	0.0	0.0	0.0	18.1		23.9
MB		14982.9	44,575.9	4,193.8	204.0	4.0	37.0	9.0	0.0	254.0		287.0
TOTAL		11,040.0	44,999.9	4,520.9	220.8	6.0	37.0	9.0	0.0		272.8	310.9
PATCO	58											
RR		11,025.3	96,730.9	4,095.7	50.0	14.0	49.8	14.0	77.3	205.1		330.6
TOTAL		11,025.3	96,730.9	4,095.7	50.0	14.0	49.8	14.0	77.3		205.1	330.6
Indianapolis	59											
DR		29.2	259.8	263.9	8.8	2.4	2.0	1.0	0.5	14.7		17.8
MB		10,780.2	49,338.7	5,447.6	245.5	18.9	42.8	27.6	13.9	348.7		419.9
TOTAL		10,809.4	49,598.5	5,711.5	254.3	21.3	44.8	28.6	14.4		363.4	437.7
Hillsborough	60											
MB		10,474.5	45,581.1	7,007.5	282.6	20.9	35.3	24.0	7.7	370.5		424.2
TOTAL		10,474.5	45,581.1	7,007.5	282.6	20.9	35.3	24.0	7.7		370.5	424.2

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000'S) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
Jacksonville TA	71											
MB		8,012.9	46,846.7	5,782.2	259.2	14.4	49.4	24.3	5.7	353.0		403.0
TOTAL		8,012.9	46,846.7	5,782.2	259.2	14.4	49.4	24.3	5.7		353.0	403.0
Orlando	72											
MB		7,795.0	37,698.6	4,257.5	185.1	10.8	29.2	0.0	3.9	229.0		261.8
TOTAL		7,795.0	37,698.6	4,257.5	185.1	10.8	29.2	0.0	3.9		229.0	261.8
Golden Gate TD	73											
MB		7,782.8	116,642.7	6,825.9	318.6	24.2	39.7	20.5	8.7	411.7		492.0
TOTAL		7,782.8	116,642.7	6,825.9	318.6	24.2	39.7	20.5	8.7		411.7	492.0
Santa **Cruz**	74											
MB		7,141.6	30472.1	3,916.3	162.4	1.7	35.1	15.5	11.5	225.9		293.4
TOTAL		7,141.6	30,472.1	3,916.3	162.1	1.7	35.1	15.5	11.5		225.9	293.4
Springfield, MA	75											
MB		7,109.8	21,432.2	2,963.8	141.0	11.0	37.0	7.0	2.0	198.0		211.0
TOTAL		7,109.8	21,432.2	2,963.8	141.0	11.0	37.0	7.0	2.0		198.0	211.0
Toledo	76											
MB		7,046.2	29,248.2	5,587.6	258.1	9.0	23.4	20.1	4.5	315.1		347.3
TOTAL		7,046.2	29,248.2	5,587.6	258.1	9.0	23.4	20.1	4.5		315.1	347.3
Spokane	77											
DR		219.1	1,488.1	856.3	32.6	3.7	2.6	0.9	0.0	39.8		48.2
MB		6,426.6	32,352.7	4,594.0	180.7	0.9	34.0	10.4	10.5	2365		286.2
TOTAL		6,645.7	33,840.8	5,450.3	213.3	4.6	36.6	11.3	10.5		276.3	334.4
Omaha	78											
DR		41.1	227.3	213.9	10.8	1.8	0.9	0.9	0.0	14.4		15.3
MB		6,580.1	24,533.0	4,199.4	166.0	7.2	27.6	14.4	8.9	224.1		263.9
TOTAL		6,621.2	24,760.3	4,413.3	176.8	9.0	28.5	15.3	8.9		238.5	263.9
Reno	79											
MB		6,138.6	20,195.9	2,691.9	111.2	4.1	15.1	5.1	2.0	137.5		165.7
TOTAL		6,138.6	20,195.9	2,691.9	111.2	4.1	15.1	5.1	2.0		137.5	165.7
Worcester. MA	80											
DR		142.7	549.4	310.4	18.5	0.8	2.2	0.3	0.3	22.1		28.0
MB		5,680.3	12,556.4	2,035.8	101.4	0.8	16.8	2.6	2.0	123.6		144.0
TOTAL		5,823.0	13,105.8	2,346.2	119.9	1.6	19.0	2.9	2.3		145.7	172.0
Santa Barbara	81											
MB		5,797.4	19,795.3	2,484.8	92.2	1.4	7.5	5.3	1.8	108.2		133.0
TOTAL		5,797.4	19,795.3	2,484.8	92.2	1.4	7.5	5.3	1.8		108.2	133.0

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
Eugene	82											
MB		5,731.6	22,224.4	2,986.4	129.0	9.5	16.0	11.5	0.0	166.0		208.0
TOTAL		5,731.6	22,224.4	2,986.4	129.0	9.5	16.0	11.5	0.0		166.0	208.0
Yew Bedford	83											
DR		NR	NR	NR	9.0	1.0	1.5	0.0	1.5	13.0		14.5
MB		5,436.3	13,234.4	1,970.0	112.0	7.0	13.5	7.0	11.5	151.0		158.5
TOTAL		5,436.3	13,234.4	1,970.0	121.0	8.0	15.0	7.0	13.0		164.0	173.0
Ft. Worth	84											
DR		85.9	814.1	506.4	16.5	3.0	3.0	1.0	0.0	23.5		24.5
MB		5,013.2	31,693.3	3,606.6	155.0	9.0	25.0	20.0	6.0	215.0		271.5
TOTAL		5,099.1	32,507.4	4,113.0	171.5	12.0	28.0	21.0	6.0		238.5	296.0
Akron	85											
DR		156.1	552.6	339.7	14.0	5.0	3.2	0.0	0.0	22.2		24.9
MB		4,907.2	15,948.8	2,883.2	171.0	3.0	21.8	2.1	9.9	207.8		237.1
TOTAL		5,063.3	16,501.4	3,222.9	185.0	8.0	25.0	2.1	9.9		230.0	262.0
Hampton, VA	86											
DR		31.7	265.1	160.4	11.2	1.6	0.3	0.4	0.0	13.5		13.5
MB		4,688.3	22,658.1	2,208.7	95.1	10.1	14.8	8.3	4.5	132.8		168.4
TOTAL		4,720.0	22,923.2	2,369.1	106.3	11.7	15.1	8.7	4.5		146.5	181.9
Savannah	87											
MB		4,681.8	15,017.5	2,048.9	89.0	7.0	18.0	7.0	1.0	122.0		140.0
TOTAL		4,681.8	15,017.5	2,048.9	89.0	7.0	18.0	7.0	1.0		122.0	140.0
Birmingham	88											
MB		4,673.6	20,380.8	2,990.3	126.3	1.0	27.8	20.8	0.0	175.9		218.2
TOTAL		4,673.6	20,380.8	2,990.3	126.3	1.0	27.8	20.8	0.0		175.9	218.2
Wilmington	89											
MB		4,632.0	17,480.1	2,265.8	119.6	6.1	20.0	7.0	4.6	157.3		182.0
TOTAL		4,632.0	17,480.1	2,265.8	119.6	6.1	20.0	7.0	4.6		157.3	182.0
Albuquerque	90											
MB		4,443.7	16,195.8	3,200.2	166.0	9.0	33.0	16.0	6.0	230.0		295.0
TOTAL		4,443.7	16,195.8	3,200.2	166.0	9.0	33.0	16.0	6.0		230.0	295.0
Lehigh/North.	91											
MB		4,294.0	15,544.5	1,657.1	86.6	0.3	13.0	3.1	2.8	105.8		127.0
TOTAL		4,294.0	15,544.5	1,657.1	86.6	0.3	13.0	3.1	2.8		105.8	127.0

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
Eugene	82											
MB		5,731.6	22,224.4	2,986.4	129.0	9.5	16.0	11.5	0.0	166.0		208.0
TOTAL		5,731.6	22,224.4	2,986.4	129.0	9.5	16.0	11.5	0.0		166.0	208.0
Yew Bedford	83											
DR		NR	NR	NR	9.0	1.0	1.5	0.0	1.5	13.0		14.5
MB		5,436.3	13,234.4	1,970.0	112.0	7.0	13.5	7.0	11.5	151.0		158.5
TOTAL		5,436.3	13,234.4	1,970.0	121.0	8.0	15.0	7.0	13.0		164.0	173.0
Ft. Worth	84											
DR		85.9	814.1	506.4	16.5	3.0	3.0	1.0	0.0	23.5		24.5
MB		5,013.2	31,693.3	3,606.6	155.0	9.0	25.0	20.0	6.0	215.0		271.5
TOTAL		5,099.1	32,507.4	4,113.0	171.5	12.0	28.0	21.0	6.0		238.5	296.0
Akron	85											
DR		156.1	552.6	339.7	14.0	5.0	3.2	0.0	0.0	22.2		24.9
MB		4,907.2	15,948.8	2,883.2	171.0	3.0	21.8	2.1	9.9	207.8		237.1
TOTAL		5,063.3	16,501.4	3,222.9	185.0	8.0	25.0	2.1	9.9		230.0	262.0
Hampton, VA	86											
DR		31.7	265.1	160.4	11.2	1.6	0.3	0.4	0.0	13.5		13.5
MB		4,688.3	22,658.1	2,208.7	95.1	10.1	14.8	8.3	4.5	132.8		168.4
TOTAL		4,720.0	22,923.2	2,369.1	106.3	11.7	15.1	8.7	4.5		146.5	181.9
Savannah	87											
MB		4,681.8	15,017.5	2,048.9	89.0	7.0	18.0	7.0	1.0	122.0		140.0
TOTAL		4,681.8	15,017.5	2,048.9	89.0	7.0	18.0	7.0	1.0		122.0	140.0
Birmingham	88											
MB		4,673.6	20,380.8	2,990.3	126.3	1.0	27.8	20.8	0.0	175.9		218.2
TOTAL		4,673.6	20,380.8	2,990.3	126.3	1.0	27.8	20.8	0.0		175.9	218.2
Wilmington	89											
MB		4,632.0	17,480.1	2,265.8	119.6	6.1	20.0	7.0	4.6	157.3		182.0
TOTAL		4,632.0	17,480.1	2,265.8	119.6	6.1	20.0	7.0	4.6		157.3	182.0
Albuquerque	90											
MB		4,443.7	16,195.8	3,200.2	166.0	9.0	33.0	16.0	6.0	230.0		295.0
TOTAL		4,443.7	16,195.8	3,200.2	166.0	9.0	33.0	16.0	6.0		230.0	295.0
Lehigh/North.	91											
MB		4,294.0	15,544.5	1,657.1	86.6	0.3	13.0	3.1	2.8	105.8		127.0
TOTAL		4,294.0	15,544.5	1,657.1	86.6	0.3	13.0	3.1	2.8		105.8	127.0

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS COLLISION	ACCIDENTS NON-COLL.	ACCIDENTS STATION	ACCIDENTS TOTAL	FATALITIES COLLISION	FATALITIES NON-COLL.	FATALITIES STATION	FATALITIES TOTAL	INJURIES COLLISION	INJURIES NON-COLL.	INJURIES STATION	INJURIES TOTAL
STRATUM 2													
MARTA	9												
MB		644	70	0	714	0	0	0	0	69	68	0	137
RR		0	62	177	239	1	1	0	2	0	61	177	238
TOTAL		644	132	177	953	1	1	0	2	69	129	177	375
Baltimore													
MTA Bus	10												
DR		13	2	0	15	0	0	0	0	6	2	0	8
MB		413	642	0	2,055	0	0	0	0	3,116	51	0	3,767
RR		0	0	38	38	0	0	0	0	0	0	76	76
TOTAL		1,426	644	38	2,108	2	0	0	2	3,192	653	76	3,851
Pittsburgh	11												
IP		0	0	0	0	0	0	0	0	0	0	0	0
MB		1,814	599	0	1,813	1	1	0	2	487	432	0	919
SC		46	36	0	82	1	0	0	1	45	36	0	81
TOTAL		1,260	635	0	1,895	2	1	0	3	532	468	0	1,000
Houston	7												
DR	12	0	0	0	0	0	0	0	0	0	0	0	0
MB		0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		0	0	0	0	0	0	0	0	0	0	0	0
Honolulu	13												
MB		753	440	0	1,193	1	0	0	1	144	451	0	595
TOTAL		753	440	0	1,193	1	0	0	1	144	451	0	595
Milwaukee	14												
MB		642	365	239	1,246	1	0	0	1	398	567	239	1,204
TOTAL		642	365	239	1,246	1	0	0	1	398	567	239	1,204
Seattle	15												
MB		1,245	182	0	1,427	1	0	0	1	57	184	0	241
SC		1	0	0	1	0	0	0	0	0	0	0	0
TB		241	70	0	311	0	0	0	0	16	73	0	89
VP		0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		1,487	252	0	1,739	1	0	0	1	73	257	0	330
GCRTA	16												
DR		6	20	5	31	0	0	0	0	6	13	5	24
MB		1,288	1,595	62	2,945	0	0	0	0	472	682	62	1,216
RR		9	68	92	169	1	0	0	1	5	51	72	128
SC		23	66	33	122	0	0	0	0	4	39	21	66
TOTAL		326	1,749	192	3,267	1	0	0	1	489	785	160	1,434

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Dade	17												
AG		1	1	8	10	0	0	0	0	1	1	8	10
MB		930	280	26	1,236	0	0	0	0	264	310	18	592
RR		5	62	85	152	0	0	0	0	5	62	85	152
TOTAL		936	343	119	1,398	0	0	0	0	270	373	111	754
Detroit DOT	18												
MB		320	87	0	407	1	0	0	1	72	85	0	157
TOTAL		320	87	0	407	1	0	0	1	72	85	0	157
Mpls-StP	19												
MB		1,254	870	11	2,135	5	0	0	5	338	811	0	1,149
TOTAL		1,254	870	11	2,135	5	0	0	5	338	811	0	1,149
New Orleans	20												
MB		421	303	9	733	1	0	0	1	586	317	9	912
SC		106	58	0	164	0	0	0	0	33	36	0	69
TOTAL		527	361	9	897	1	0	0	1	619	353	9	981
BART	21												
RR		0	261	656	917	0	0	0	0	0	261	656	917
TOTAL		0	261	656	917	0	0	0	0	0	261	656	917
Oakland	22												
MB		891	245	0	1,136	5	0	0	5	285	24	0	309
TOTAL		891	245	0	1,136	5	0	0	5	285	24	0	309
PATH	23												
RR		0	36	31	67	0	1	0	1	0	35	31	66
TOTAL		0	36	31	67	0	1	0	1	0	35	31	66
Portland	24												
MB		523	306	36	865	2	0	0	2	326	466	39	831
SC		94	72	38	204	0	0	1	1	84	74	52	210
TOTAL		617	378	74	1,069	2	0	1	3	410	540	91	1,041
Denver	25												
MB		798	207	78	1,083	1	0	0	1	106	324	180	610
TOTAL		798	207	78	1,083	1	0	0	1	106	324	180	610
St.Louis	26												
DR		24	5	0	29	0	0	0	0	1	2	0	3
MB		422	293	0	715	0	1	0	1	236	278	0	514
TOTAL		446	298	0	744	0	1	0	1	237	280	0	517

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Dade	17												
AG		1	1	8	10	0	0	0	0	1	1	8	10
MB		930	280	26	1,236	0	0	0	0	264	310	18	592
RR		5	62	85	152	0	0	0	0	5	62	85	152
TOTAL		936	343	119	1,398	0	0	0	0	270	373	111	754
Detroit DOT	18												
MB		320	87	0	407	1	0	0	1	72	85	0	157
TOTAL		320	87	0	407	1	0	0	1	72	85	0	157
Mpls-StP	19												
MB		1,254	870	11	2,135	5	0	0	5	338	811	0	1,149
TOTAL		1,254	870	11	2,135	5	0	0	5	338	811	0	1,149
New Orleans	20												
MB		421	303	9	733	1	0	0	1	586	317	9	912
SC		106	58	0	164	0	0	0	0	33	36	0	69
TOTAL		527	361	9	897	1	0	0	1	619	353	9	981
BART	21												
RR		0	261	656	917	0	0	0	0	0	261	656	917
TOTAL		0	261	656	917	0	0	0	0	0	261	656	917
Oakland	22												
MB		891	245	0	1,136	5	0	0	5	285	24	0	309
TOTAL		891	245	0	1,136	5	0	0	5	285	24	0	309
PATH	23												
RR		0	36	31	67	0	1	0	1	0	35	31	66
TOTAL		0	36	31	67	0	1	0	1	0	35	31	66
Portland	24												
MB		523	306	36	865	2	0	0	2	326	466	39	831
SC		94	72	38	204	0	0	1	1	84	74	52	210
TOTAL		617	378	74	1,069	2	0	1	3	410	540	91	1,041
Denver	25												
MB		798	207	78	1,083	1	0	0	1	106	324	180	610
TOTAL		798	207	78	1,083	1	0	0	1	106	324	180	610
St.Louis	26												
DR		24	5	0	29	0	0	0	0	1	2	0	3
MB		422	293	0	715	0	1	0	1	236	278	0	514
TOTAL		446	298	0	744	0	1	0	1	237	280	0	517

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
STRATUM 3													
Buffalo	31												
MB		491	254	2	147	0	0	0	0	61	254	0	315
SC		5	67	76	148	0	0	0	0	1	61	68	130
TOTAL		496	321	78	895	0	0	0	0	62	315	68	445
Louisville	32												
DR		3	10	0	13	0	0	0	0	0	9	0	9
MB		266	287	56	609	0	0	0	0	25	200	29	254
TOTAL		269	297	56	622	0	0	0	0	25	209	29	263
Cincinnati	33												
MB		536	119	0	655	0	0	0	0	31	119	0	150
TOTAL		536	119	0	655	0	0	0	0	31	119	0	150
Phoenix	34												
MB		296	170	0	466	2	0	0	2	83	78	0	161
TOTAL		296	170	0	466	2	0	0	2	83	78	0	161
Richmond	35												
MB		376	160	11	547	0	0	0	0	138	160	11	309
TOTAL		376	160	11	547	0	0	0	0	138	160	11	309
Long Beach	36												
MB		319	147	23	489	0	0	0	0	30	147	0	177
TOTAL		319	147	23	489	0	0	0	0	30	147	0	177
Salt Lake	37												
DR		11	11	0	22	0	0	0	0	0	10	0	10
MB		564	109	2	675	1	0	0	1	52	99	1	152
TOTAL		575	120	2	697	1	0	0	1	52	109	1	162
PACE	38												
MB		477	33	12	522	0	a	0	0	175	31	0	206
TOTAL		477	33	12	522	0	0	0	0	175	31	0	206
Connectlcut	39												
MB		277	144	0	421	40	100	0	140	40	100	0	140
TOTAL		277	144	0	421	40	100	0	140	40	100	0	140
Santa Monica - MB	40												
MB		180	62	0	242	0	0	0	0	58	62	0	120
TOTAL		180	62	0	242	0	0	0	0	58	62	0	120

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
STRATUM 3													
Buffalo	31												
MB		491	254	2	147	0	0	0	0	61	254	0	315
SC		5	67	76	148	0	0	0	0	1	61	68	130
TOTAL		496	321	78	895	0	0	0	0	62	315	68	445
Louisville	32												
DR		3	10	0	13	0	0	0	0	0	9	0	9
MB		266	287	56	609	0	0	0	0	25	200	29	254
TOTAL		269	297	56	622	0	0	0	0	25	209	29	263
Cincinnati	33												
MB		536	119	0	655	0	0	0	0	31	119	0	150
TOTAL		536	119	0	655	0	0	0	0	31	119	0	150
Phoenlx	34												
MB		296	170	0	466	2	0	0	2	83	78	0	161
TOTAL		296	170	0	466	2	0	0	2	83	78	0	161
Richmond	35												
MB		376	160	11	547	0	0	0	0	138	160	11	309
TOTAL		376	160	11	547	0	0	0	0	138	160	11	309
Long Beach	36												
MB		319	147	23	489	0	0	0	0	30	147	0	177
TOTAL		319	147	23	489	0	0	0	0	30	147	0	177
Salt Lake	37												
DR		11	11	0	22	0	0	0	0	0	10	0	10
MB		564	109	2	675	1	0	0	1	52	99	1	152
TOTAL		575	120	2	697	1	0	0	1	52	109	1	162
PACE	38												
MB		477	33	12	522	0	0	0	0	175	31	0	206
TOTAL		477	33	12	522	0	0	0	0	175	31	0	206
Connecticut	39												
MB		277	144	0	421	40	100	0	140	40	100	0	140
TOTAL		277	144	0	421	40	100	0	140	40	100	0	140
Santa Monica - MB	40												
MB		180	62	0	242	0	0	0	0	58	62	0	120
TOTAL		180	62	0	242	0	0	0	0	58	62	0	120

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Austin, TX	51												
DR		28	10	0	38	0	0	0	0	9	10	0	19
MB		258	155	0	413	0	0	0	0	53	155	0	208
TOTAL		286	165	0	451	0	0	0	0	62	165	0	227
Albany	52												
DR		13	6	0	19	0	0	0	0	0	6	0	6
MB		182	97	0	279	1	0	0	1	38	94	0	132
TOTAL		195	103	0	298	1	0	0	1	38	100	0	138
NY-Queens Surface	53												
MB		540	103	0	643	0	0	0	0	115	117	0	232
TOTAL		540	103	0	643	0	0	0	0	115	117	0	232
Tuscon	54												
DR		52	21	5	78	0	0	0	0	9	18	5	32
MB		91	35	1	127	1	0	0	1	63	36	1	100
TOTAL		143	56	6	205	1	0	0	1	72	54	6	132
Montco, MD	55												
DR		7	0	0	7	0	0	0	0	1	0	0	1
MB		214	0	3	217	0	0	0	0	69	0	0	69
TOTAL		221	0	3	224	0	0	0	0	70	0	0	70
San Diego Troll.	56												
SC		6	0	0	6	0	0	0	0	6	0	0	6
TOTAL		6	0	0	6	0	0	0	0	6	0	0	6
Charlotte	57												
DR		7	8	0	15	0	0	0	0	2	8	0	10
MB		148	12	4	164	0	0	0	0	196	1	0	197
TOTAL		155	20	4	179	0	0	0	0	198	9	0	207
PATCO	58												
RR		0	14	21	35	0	0	0	0	0	14	21	35
TOTAL		0	14	21	35	0	0	0	0	0	14	21	35
Indianapolis	59												
DR		12	8	0	20	0	0	0	0	3	7	0	10
MB		341	410	67	818	0	0	0	0	118	450	54	622
TOTAL		353	418	67	838	0	0	0	0	121	457	54	632
Hillsborough	60												
MB		237	47	0	284	1	0	0	1	80	47	0	127
TOTAL		237	47	0	284	1	0	0	1	80	47	0	127

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Austin, TX	51												
DR		28	10	0	38	0	0	0	0	9	10	0	19
MB		258	155	0	413	0	0	0	0	53	155	0	208
TOTAL		286	165	0	451	0	0	0	0	62	165	0	227
Albany	52												
DR		13	6	0	19	0	0	0	0	0	6	0	6
MB		182	97	0	279	1	0	0	1	38	94	0	132
TOTAL		195	103	0	298	1	0	0	1	38	100	0	138
NY-Queens Surface	53												
MB		540	103	0	643	0	0	0	0	115	117	0	232
TOTAL		540	103	0	643	0	0	0	0	115	117	0	232
Tuscon	54												
DR		52	21	5	78	0	0	0	0	9	18	5	32
MB		91	35	1	127	1	0	0	1	63	36	1	100
TOTAL		143	56	6	205	1	0	0	1	72	54	6	132
Montco, MD	55												
DR		7	0	0	7	0	0	0	0	1	0	0	1
MB		214	0	3	217	0	0	0	0	69	0	0	69
TOTAL		221	0	3	224	0	0	0	0	70	0	0	70
San Diego Troll.	56												
SC		6	0	0	6	0	0	0	0	6	0	0	6
TOTAL		6	0	0	6	0	0	0	0	6	0	0	6
Charlotte	57												
DR		7	8	0	15	0	0	0	0	2	8	0	10
MB		148	12	4	164	0	0	0	0	196	1	0	197
TOTAL		155	20	4	179	0	0	0	0	198	9	0	207
PATCO	58												
RR		0	14	21	35	0	0	0	0	0	14	21	35
TOTAL		0	14	21	35	0	0	0	0	0	14	21	35
Indianapolis	59												
DR		12	8	0	20	0	0	0	0	3	7	0	10
MB		341	410	67	818	0	0	0	0	118	450	54	622
TOTAL		353	418	67	838	0	0	0	0	121	457	54	632
Hillsborough	60												
MB		237	47	0	284	1	0	0	1	80	47	0	127
TOTAL		237	47	0	284	1	0	0	1	80	47	0	127

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Jacksonville TA	71												
MB		82	45	31	158	0	0	0	0	28	45	31	104
TOTAL		82	45	31	158	0	0	0	0	28	45	31	104
Orlando	72												
MB		87	42	0	129	0	0	0	0	50	61	0	111
TOTAL		87	42	0	129	0	0	0	0	50	61	0	111
Golden Gate TD	73												
MB		224	55	1	280	1	0	0	1	16	54	1	71
TOTAL		224	55	1	280	1	0	0	1	16	54	1	71
Santa Cruz	74												
MB		158	97	5	260	0	0	0	0	7	47	3	57
TOTAL		158	97	5	260	0	0	0	0	7	47	3	57
Springfield, MA	75												
MB		112	70	0	182	0	0	0	0	23	70	0	93
TOTAL		112	70	0	182	0	0	0	0	23	70	0	93
Toledo	76												
MB		229	68	2	299	0	0	0	0	33	68	2	103
TOTAL		229	68	2	299	0	0	0	0	33	68	2	103
Spokane	77												
DR		56	0	1	57	0	0	0	0	4	0	0	4
MB		103	20	4	127	0	0	0	0	8	20	0	28
TOTAL		159	20	5	184	0	0	0	0	12	20	0	32
Omaha	78												
DR		8	1	0	9	0	0	0	0	1	1	0	2
MB		126	7	9	142	0	0	0	0	6	7	9	22
TOTAL		134	8	9	151	0	0	0	0	7	8	9	24
Reno	79												
MB		102	3	0	105	0	0	0	0	12	4	0	16
TOTAL		102	3	0	105	0	0	0	0	12	4	0	16
Worcester. MA	80												
DR		26	5	1	32	0	0	0	0	2	4	1	7
MB		75	26	0	101	0	0	0	0	8	26	0	34
TOTAL		101	31	1	133	0	0	0	0	10	30	1	41
Santa Barbara	81												
MB		58	25	20	103	0	0	0	0	11	25	20	56
TOTAL		58	25	20	103	0	0	0	0	11	25	20	56

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Jacksonville TA	71												
MB		82	45	31	158	0	0	0	0	28	45	31	104
TOTAL		82	45	31	158	0	0	0	0	28	45	31	104
Orlando	72												
MB		87	42	0	129	0	0	0	0	50	61	0	111
TOTAL		87	42	0	129	0	0	0	0	50	61	0	111
Golden Gate TD	73												
MB		224	55	1	280	1	0	0	1	16	54	1	71
TOTAL		224	55	1	280	1	0	0	1	16	54	1	71
Santa Cruz	74												
MB		158	97	5	260	0	0	0	0	7	47	3	57
TOTAL		158	97	5	260	0	0	0	0	7	47	3	57
Springfield, MA	75												
MB		112	70	0	182	0	0	0	0	23	70	0	93
TOTAL		112	70	0	182	0	0	0	0	23	70	0	93
Toledo	76												
MB		229	68	2	299	0	0	0	0	33	68	2	103
TOTAL		229	68	2	299	0	0	0	0	33	68	2	103
Spokane	77												
DR		56	0	1	57	0	0	0	0	4	0	0	4
MB		103	20	4	127	0	0	0	0	8	20	0	28
TOTAL		159	20	5	184	0	0	0	0	12	20	0	32
Omaha	78												
DR		8	1	0	9	0	0	0	0	1	1	0	2
MB		126	7	9	142	0	0	0	0	6	7	9	22
TOTAL		134	8	9	151	0	0	0	0	7	8	9	24
Reno	79												
MB		102	3	0	105	0	0	0	0	12	4	0	16
TOTAL		102	3	0	105	0	0	0	0	12	4	0	16
Worcester. MA	80												
DR		26	5	1	32	0	0	0	0	2	4	1	7
MB		75	26	0	101	0	0	0	0	8	26	0	34
TOTAL		101	31	1	133	0	0	0	0	10	30	1	41
Santa Barbara	81												
MB		58	25	20	103	0	0	0	0	11	25	20	56
TOTAL		58	25	20	103	0	0	0	0	11	25	20	56

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
N. Kentucky	92												
DR		7	1	0	8	0	0	0	0	0	0	0	0
MB		91	65	14	170	0	0	1	1	13	38	9	60
TOTAL		98	66	14	178	0	0	1	1	13	38	9	60
Harrisburg	93												
MB		15	29	0	44	0	0	0	0	3	11	0	14
TOTAL		15	29	0	44	0	0	0	0	3	11	0	14
San Bernadino	94												
MB		53	0	0	53	0	0	0	0	12	0	0	12
TOTAL		53	0	0	53	0	0	0	0	12	0	0	12
Charleston	95												
MB		41	12	0	53	0	0	0	0	52	8	0	60
TOTAL		41	12	0	53	0	0	0	0	52	8	0	60
Grand Rapids	96												
MB		70	32	0	102	0	0	0	0	17	33	0	50
TOTAL		70	32	0	102	0	0	0	0	17	33	0	50
Duluth TA	97												
MB		29	12	0	41	0	0	0	0	0	12	0	12
TOTAL		29	12	0	41	0	0	0	0	0	12	0	12
Tulsa TA	98												
DR		0	0	0	0	0	0	0	0	0	0	0	0
MB		0	0	0	0	0	1	0	1	14	27	0	41
TOTAL		0	0	0	0	0	1	0	1	14	27	0	41
Lynwood-Comm	99												
MB		74	8	2	84	0	0	0	0	13	9	0	22
TOTAL		74	8	2	84	0	0	0	0	13	9	0	22
COTPA	100												
DR		4	3	0	7	0	0	0	0	0	3	0	3
MB		56	35	0	91	1	0	0	1	19	31	0	50
TOTAL		60	38	0	98	1	0	0	1	19	34	0	53
SUBTOTAL.		*13,834*	*5,608*	*673*	*20,115*	*60*	*102*	*2*	*164*	*3,353*	*5,066*	*368*	*8,787*
TOTAL		*59,664*	*22,949*	*7,447*	*90,060*	*157*	*119*	*10*	*286*	*23,092*	*24,035*	*9,120*	*56,247*

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
N. Kentucky	92												
DR		7	1	0	8	0	0	0	0	0	0	0	0
MB		91	65	14	170	0	0	1	1	13	38	9	60
TOTAL		98	66	14	178	0	0	1	1	13	38	9	60
Harrisburg	93												
MB		15	29	0	44	0	0	0	0	3	11	0	14
TOTAL		15	29	0	44	0	0	0	0	3	11	0	14
San Bernadino	94												
MB		53	0	0	53	0	0	0	0	12	0	0	12
TOTAL		53	0	0	53	0	0	0	0	12	0	0	12
Charleston	95												
MB		41	12	0	53	0	0	0	0	52	8	0	60
TOTAL		41	12	0	53	0	0	0	0	52	8	0	60
Grand Rapids	96												
MB		70	32	0	102	0	0	0	0	17	33	0	50
TOTAL		70	32	0	102	0	0	0	0	17	33	0	50
Duluth TA	97												
MB		29	12	0	41	0	0	0	0	0	12	0	12
TOTAL		29	12	0	41	0	0	0	0	0	12	0	12
Tulsa TA	98												
DR		0	0	0	0	0	0	0	0	0	0	0	0
MB		0	0	0	0	0	1	0	1	14	27	0	41
TOTAL		0	0	0	0	0	1	0	1	14	27	0	41
Lynwood-Comm	99												
MB		74	8	2	84	0	0	0	0	13	9	0	22
TOTAL		74	8	2	84	0	0	0	0	13	9	0	22
COTPA	100												
DR		4	3	0	7	0	0	0	0	0	3	0	3
MB		56	35	0	91	1	0	0	1	19	31	0	50
TOTAL		60	38	0	98	1	0	0	1	19	34	0	53
SUBTOTAL.		*13,834*	*5,608*	*673*	*20,115*	*60*	*102*	*2*	*164*	*3,353*	*5,066*	*368*	*8,787*
TOTAL		*59,664*	*22,949*	*7,447*	*90,060*	*157*	*119*	*10*	*286*	*23,092*	*24,035*	*9,120*	*56,247*

TRANSIT AGENCY DATABASE
RANKED BY TOTAL FTE'S

TRANSIT AGENCY DATABASE
RANKED BY TOTAL FTE'S

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	(000's) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYERS BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
STRATUM 1											
NYCTA											
MB	753,030.2	1,514,915.3	94,675.E	8,014.8	224.9	2,081.8	711.7	474.6	11,507.8		14,842.7
RR	1702,6108	7,376,120.5	312,194.6	4,937.2	1,027.1	2,272.9	1,565.0	6,992.5	16,794.7		28 539.1
TOTAL	2,455,641.0	8,891,035.8	406,870.4	12,952.0	1,251.0	4,354.7	2,276.7	7,467.1		28,302.5	43,381.8
CTA											
MB	420,572.7	1,034,121.7	72,798.5	4,085.3	386.3	768.5	474.1	383.8	6,098.0		7,057.2
RR	168,658.8	1,050,921.7	54,630.1	886.6	1,198.8	383.4	197.3	842.2	3,508.3		4,207.5
TOTAL	589,231.5	2,085,043.4	127,428.6	4,971.9	1,585.1	1,151.9	671.4	1,226.0		9,606.3	11,264.7
WMATA											
MB	169437.9	530498.7	39,350.2	2,517.5	101.0	652.9	147.5	138.3	3,557.2		4,410.1
RR	183,479.6	978,315.0	32,859.C	358.0	361.8	525.4	76.5	1,033.2	2,354.9		3,444.1
TOTAL	352,917.5	1,508,813.7	72,209.2	2,875.5	462.8	1,178.3	224.0	1,171.5		5,912.1	7,854.2
SCRTD											
MB	411,820.0	1,648,700.0	86,149.7	4,439.2	134.4	1,032.6	422.5	253.4	6,282.1		7,706.8
TOTAL	411,820.0	1,648,700.0	86,149.7	4,439.2	134.4	1,032.6	422.5	253.4		6,282.1	7,706.8
SEPTA											
MB	186,820.3	491,684.4	1,859.6	2,411.0	54.8	599.4	126.5	[illegible]	3,[illegible]		4,036.5
RR	94,099.9	415,800.4	35,151.0	293.3	407.0	347.5	108.6	[illegible]	1,[illegible]		1,996.9
SC	46,593.7	104,612.3	16,275.7	350.0	23.0	170.6	31.2	298.9	873.7		1,234.5
TB	13 355.5	21,132.2	4,831.5	134.2	11.4	91.0	10.1	36.0	282.7		394.1
TOTAL	340,869.4	1,033,229.3	58,117.8	3,188.5	496.2	1,208.5	276.4	803.2		5,972.8	7,662.0
MBTA											
MB	99,609.0	232,547.7	23,239.1	1,233.0	177.0	302.0	77.0	149.0	1,938.0		2,478.0
RR	157,937.6	480,184.7	21,857.5	602.0	221.0	220.0	209.0	504.0	1,756.0		2,811.0
SC	20,499.9	28,754.5	1,183.8	61.0	19.0	37.0	18.0	86.0	221.0		303.0
TB	3,512.0	8,454.2	742.0	67.0	10.0	11.0	10.0	10.0	108.0		138.0
TOTAL	281,558.5			1,963.0	427.0	570.0	314.0	749.0		4,023.0	5,930.0
NJT											
MB	123,774.8	911,149.1	60,958.4	2,523.6	195.5	627.8	273.5	78.2	3,698.6		4,529.8
SC	4,064.9	8,130.9	622.0	21.0	1.7	22.6	5.1	0.4	50.8		59.0
TOTAL	127,839.7	919,280.0	61,580.4	2,544.6	197.2	650.4	278.6	78.6		3,749.4	4,588.8
MUNI											
CC	10,493.6	11,861.2	554.7	152.0	15.0	26.0	7.0	43.0	243.0		265.0
MB	98,983.3	209,556.4	12,702.8	849.0	67.0	229.0	73.0	47.0	1,265.0		1,442.0
SC	38,909.4	105474.8	4,002.3	219.0	101.0	213.0	54.0	80.0	667.0		756.0
TB	87,407.6	118,500.2	7,319.7	592.0	64.0	108.0	43.0	30.0	837.0		957.0
TOTAL	235,793.9	445,392.6	24,579.5	1,812.0	247.0	576.0	177.0	200.0		3,012.0	3,420.0
SUBTOTAL,	*4,795,671.5*	*17,281,435.9*	*883,958.6*	*34,746.7*	*4,801.7*	*10,722.4*	*4,640.6*	*11,948.8*		*66,860.2*	*91,608.3*

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	(000's) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYERS BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
STRATUM 1											
NYCTA											
MB	753,030.2	1,514,915.3	94,675.E	8,014.8	224.9	2,081.8	711.7	474.6	11,507.8		14,842.7
RR	1702,6108	7,376,120.5	312,194.6	4,937.2	1,027.1	2,272.9	1,565.0	6,992.5	16,794.7		28 539.1
TOTAL	2,455,641.0	8,891,035.8	406,870.4	12,952.0	1,251.0	4,354.7	2,276.7	7,467.1		28,302.5	43,381.8
CTA											
MB	420,572.7	1,034,121.7	72,798.5	4,085.3	386.3	768.5	474.1	383.8	6,098.0		7,057.2
RR	168,658.8	1,050,921.7	54,630.1	886.6	1,198.8	383.4	197.3	842.2	3,508.3		4,207.5
TOTAL	589,231.5	2,085,043.4	127,428.6	4,971.9	1,585.1	1,151.9	671.4	1,226.0		9,606.3	11,264.7
WMATA											
MB	169437.9	530498.7	39,350.2	2,517.5	101.0	652.9	147.5	138.3	3,557.2		4,410.1
RR	183,479.6	978,315.0	32,859.0	358.0	361.8	525.4	76.5	1,033.2	2,354.9		3,444.1
TOTAL	352,917.5	1,508,813.7	72,209.2	2,875.5	462.8	1,178.3	224.0	1,171.5		5,912.1	7,854.2
SCRTD											
MB	411,820.0	1,648,700.0	86,149.7	4,439.2	134.4	1,032.6	422.5	253.4	6,282.1		7,706.8
TOTAL	411,820.0	1,648,700.0	86,149.7	4,439.2	134.4	1,032.6	422.5	253.4		6,282.1	7,706.8
SEPTA											
MB	186,820.3	491,684.4	1,859.6	2,411.0	54.8	599.4	126.5	[illegible]	3,[illegible]		4,036.5
RR	94,099.9	415,800.4	35,151.0	293.3	407.0	347.5	108.6	3[illegible]	1,[illegible]		1,996.9
SC	46,593.1	104,612.3	16,275.7	350.0	23.0	170.6	31.2	298.9	873.7		1,234.5
TB	13 355.5	21,132.2	4,831.5	134.2	11.4	91.0	10.1	36.0	282.7		394.1
TOTAL	340,869.4	1,033,229.3	58,117.8	3,188.5	496.2	1,208.5	276.4	803.2		5,972.8	7,662.0
MBTA											
MB	99,609.0	232,547.7	23,239.1	1,233.0	177.0	302.0	77.0	149.0	1,938.0		2,478.0
RR	157,937.6	480,184.7	21,857.5	602.0	221.0	220.0	209.0	504.0	1,756.0		2,811.0
SC	20,499.9	28,754.5	1,183.8	61.0	19.0	37.0	18.0	86.0	221.0		303.0
TB	3,512.0	8,454.2	742.0	67.0	10.0	11.0	10.0	10.0	108.0		138.0
TOTAL	281,558.5	[illegible]	[illegible]	1,963.0	427.0	570.0	314.0	749.0		4,023.0	5,930.0
NJT											
MB	123,774.8	911,149.1	60,958.4	2,523.6	195.5	627.8	273.5	78.2	3,698.6		4,529.8
SC	4,064.9	8,130.9	622.0	21.0	1.7	22.6	5.1	0.4	50.8		59.0
TOTAL	127,839.7	919,280.0	61,580.4	2,544.6	197.2	650.4	278.6	78.6		3,749.4	4,588.8
MUNI											
CC	10,493.6	11,861.2	554.7	152.0	15.0	26.0	7.0	43.0	243.0		265.0
MB	98,983.3	209,556.4	12,702.8	849.0	67.0	229.0	73.0	47.0	1,265.0		1,442.0
SC	38,909.4	105474.8	4,002.3	219.0	101.0	213.0	54.0	80.0	667.0		756.0
TB	87,407.6	118,500.2	7,319.7	592.0	64.0	108.0	43.0	30.0	837.0		957.0
TOTAL	235,793.9	445,392.6	24,579.5	1,812.0	247.0	576.0	177.0	200.0		3,012.0	3,420.0
SUBTOTAL,	*4,795,671.5*	*17,281,435.9*	*883,958.6*	*34,746.7*	*4,801.7*	*10,722.4*	*4,640.6*	*11,948.8*		*66,860.2*	*91,608.3*

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000'S) PASSENGER MILES	(000'S) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
Oakland	17											
MB		630919	275,407.6	21,953.8	1185.0	66.0	210.0	81.0	37.0	1,579.0		1,890.0
TOTAL		63,091.9	275,407.6	21,953.8	1,185.0	66.0	210.0	81.0	37.0		1,579.0	1,890.0
Denver	18											
MB		50,883.0	199,205.3	22,347.0	1 005.4	100.5	207.3	118.2	63.9	1 p95.3		1,881.8
TOTAL		50,883.0	199,205.3	22,347.0	1,005.4	100.5	207.3	118.2	63.9		1,495.3	1,881.8
Detroit DOT	19											
MB		71,051.6	265,672.5	22,404.3	975.0	119.0	399.0	68.0	73.0	1,634.0		1,870.0
TOTAL		71,051.6	265,672.5	22,404.3	975.0	119.0	399.0	68.0	73.0		1,634.0	1,870.0
BART	20											
RR		64,064.5	757,350.0	33,195.1	210.4	48.5	332.3	45.7	441.5	1,078.4		1, 833.1
TOTAL		64,064.5	757,350.0	33,195.1	210.4	48.5	332.3	45.7	441.5		1,078.4	1,833.7
DART	21											
MB		41,760.1	168433.8	16,509.1	769.7	41.8	259.0	78.9	62.1	1,211.5		1,724.3
TOTAL		41,760.1	168,433.8	16,509.1	769.7	41.8	259		62.1		1,211.5	1,724.3
St.Louis	22											
DR		132.9	1,098.6	802.9	31.2	5.4	2.7	2.7	0.0	42.0		45.0
MB		44,499s	174,,844.4	18,651.5	941.8	24.5	187.8	101.8	69.1	1,325.0		16480
TOTAL		44,499.9	175,943.0	19,454.4	973.0	29.9	190.5	104.5	69.1		1,367.0	1,693.0
Santa Clara	23											
MB		36,442.5	140,540.6	19,372.8	868.0	46.8	227.0	74.0	22.4	1238.2		1,481.4
SC		2,007.7	6,611.5	534.4	34.0	5.0	19.2	9.4	26.0	93.6		148.8
TOTAL		38,450.2	147,152.1	19,907.2	902.0	51.8	246.2	83.4	48.4		1,331.8	1,630.2
Portland	24											
MB		44,903.8	159,699.9	18,196.7	795.9	71.1	142.5	72.1	19.4	1,101.0		1,325.7
SC		6,184.9	34,956.6	1,399.6	31.6	13.1	13.0	5.5	23.9	87.1		129.9
TOTAL		51,088.7	194,656.5	19,596.3	827.5	84.2	155.5	77.6	43.3		1,188.1	1,455.6
Milwaukee	25											
MB		72,656.7	190 387.9	17,097.8	788.2	70.0	146.8	47.6	39.3	1,091.9		1,343.4
TOTAL		72,656.7	190,387.9	17,097.8	788.2	70.0	146.8	47.6	39.3		1,091.9	1,343.4
Orange Co	26											
MB		38,534.2	167430.1	15,575.8	711.8	39.4	111.5	60.6	15.4	938.7		1,297.7
VP		6.1	293.6	50.7	0.0	0.0	0.5	0.5	0.0	1.0		3.5
TOTAL		38,540.3	167,723.7	15,626.5	711.8	39.4	112.0	61.1	15.4		939.7	1,301.2
New Orleans	27											
MB		64,526.4	170,883.4	12,076.7	607.0	32.0	155.0	70.0	16.4	880.4		1,076.9
SC		5,079.4	8,719.0	545.0	50.0	3.0	29.0	13.0	27.6	122.6		136.0
TOTAL		69,605.8	179,602.4	12,621.7	657.0	35.0	184.0	83.0	44.0		1,003.0	1,212.9

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000's) TOTAL RIDERSHIP BY MODE	(000'S) PASSENGER MILES	(000'S) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
Oakland	17											
MB		630919	275,407.6	21,953.8	1185.0	66.0	210.0	81.0	37.0	1,579.0		1,890.0
TOTAL		63,091.9	275,407.6	21,953.8	1,185.0	66.0	210.0	81.0	37.0		1,579.0	1,890.0
Denver	18											
MB		50,883.0	199,205.3	22,347.0	1 005.4	100.5	207.3	118.2	63.9	1 p95.3		1,881.8
TOTAL		50,883.0	199,205.3	22,347.0	1,005.4	100.5	207.3	118.2	63.9		1,495.3	1,881.8
Detroit DOT	19											
MB		71,051.6	265,672.5	22,404.3	975.0	119.0	399.0	68.0	73.0	1,634.0		1,870.0
TOTAL		71,051.6	265,672.5	22,404.3	975.0	119.0	399.0	68.0	73.0		1,634.0	1,870.0
BART	20											
RR		64,064.5	757,350.0	33,195.1	210.4	48.5	332.3	45.7	441.5	1,078.4		1, 833.1
TOTAL		64,064.5	757,350.0	33,195.1	210.4	48.5	332.3	45.7	441.5		1,078.4	1,833.7
DART	21											
MB		41,760.1	168433.8	16,509.1	769.7	41.8	259.0	78.9	62.1	1,211.5		1,724.3
TOTAL		41,760.1	168,433.8	16,509.1	769.7	41.8	259		62.1		1,211.5	1,724.3
St-LOUIS	22											
DR		132.9	1,098.6	802.9	31.2	5.4	2.7	2.7	0.0	42.0		45.0
MB		44,499s	174,,844.4	18,651.5	941.8	24.5	187.8	101.8	69.1	1,325.0		16480
TOTAL		44,499.9	175,943.0	19,454.4	973.0	29.9	190.5	104.5	69.1		1,367.0	1,693.0
Santa Clara	23											
MB		36,442.5	140,540.6	19,372.8	868.0	46.8	227.0	74.0	22.4	1238.2		1,481.4
SC		2,007.7	6,611.5	534.4	34.0	5.0	19.2	9.4	26.0	93.6		148.8
TOTAL		38,450.2	147,152.1	19,907.2	902.0	51.8	246.2	83.4	48.4		1,331.8	1,630.2
Portland	24											
MB		44,903.8	159,699.9	18,196.7	795.9	71.1	142.5	72.1	19.4	1,101.0		1,325.7
SC		6,184.9	34,956.6	1,399.6	31.6	13.1	13.0	5.5	23.9	87.1		129.9
TOTAL		51,088.7	194,656.5	19,596.3	827.5	84.2	155.5	77.6	43.3		1,188.1	1,455.6
Milwaukee	25											
MB		72,656.7	190 387.9	17,097.8	788.2	70.0	146.8	47.6	39.3	1,091.9		1,343.4
TOTAL		72,656.7	190,387.9	17,097.8	788.2	70.0	146.8	47.6	39.3		1,091.9	1,343.4
Orange Co	26											
MB		38,534.2	167430.1	15,575.8	711.8	39.4	111.5	60.6	15.4	938.7		1,297.7
VP		6.1	293.6	50.7	0.0	0.0	0.5	0.5	0.0	1.0		3.5
TOTAL		38,540.3	167,723.7	15,626.5	711.8	39.4	112.0	61.1	15.4		939.7	1,301.2
New Orleans	27											
MB		64,526.4	170,883.4	12,076.7	607.0	32.0	155.0	70.0	16.4	880.4		1,076.9
SC		5,079.4	8,719.0	545.0	50.0	3.0	29.0	13.0	27.6	122.6		136.0
TOTAL		69,605.8	179,602.4	12,621.7	657.0	35.0	184.0	83.0	44.0		1,003.0	1,212.9

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000'S) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAIN-r.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
STRATUM 3					40,019.4	3,764.0	10,678.0	3,848.2	4,900.8		32,939.2	
Honolulu	31											
MB		72,694.5	322,870.2	14,841.1	595.5	36.9	148.6	59.6	0.8	841.4		970.6
TOTAL		72,694.5	322,870.2	14,841.1	595.5	36.9	148.6	59.6	0.8		841.4	970.6
Phoenix	32											
MB		25,002.0	98,084.7	9,445.1	491.3	23.3	76.8	43.2	22.6	657.2		810.5
TOTAL		25,002.0	98,084.7	9,445.1	491.3	23.3	76.8	43.2	22.6		657.2	810.5
Cincinnati	33											
MB		26,894.1	125,204.3	9,677.7	443.2	26.8	135.9	25.3	26.2	657.4		754.3
TOTAL		26,894.7	125,204.3	9,677.7	443.2	26.8	135.9	25.3	26.2		657.4	754.3
Salt Lake	34											
DR		109.2	524.1	671.9	20.7	0.0	1.6	1.3	0.0	23.6		30.8
MB		20,990.4	108,744.8	12,838.2	424.9	5.1	94.4	38.5	13.9	576.8		743.4
TOTAL		21,099.6	109,268.9	13,510.1	445.6	5.1	96.0	39.8	13.9		600.4	774.2
NY-Queens Surface	35											
MB		12,915.2	75,031.0	6,489.4	362.0	49.0	173.0	65.0	0.0	649.0		728.0
TOTAL		12,915.2		6,489.4	362.0	49.0	173.0	65.0	0.0		649.0	728.0
Columbus	36											
MB		17,159.4	82,788.8	7,490.9	399.2	28.4	58.6	44.6	28.8	559.6		672.2
TOTAL		17,159.4	82,788.8	7,490.9	399.2	28.4	58.6	44.6	28.8		559.6	672.2
Detrolt SEMTA	37											
DR		581.3	5,085.9	1,889.3	73.8	24.7	17.7	7.7	0.6	124.5		164.7
MB		8,098.0	71,841.6	7,803.4	258.2	16.6	69.6	34.2	2.2	380.8		505.0
TOTAL		8,679.3	76,927.5	9,692.7	332.0	41.3	87.3	41.9	2.8		505.3	669.7
Kansas City	38											
MB		18,091.7	61,475.5	7,945.4	359.4	13.9	86.1	46.6	27.9	533.9		646.6
TOTAL		18,091.7	61,475.5	7,945.4	359.4	13.9	86.1	46.6	27.9		533.9	646.6
Broward FL	39											
MB		14,413.2	67,589.6	8,973.2	401.6	13.3	91.7	25.4	12.3	544.3		646.6
TOTAL		14,413.2	67,589.6	8,973.2	401.6	13.3	91.7	25.4	12.3		544.3	646.6
SAMTRANS	40											
DR		74.5	572.5	480.9	15.8	0.0	2.1	1.8	0.0	19.7		25.2
MB		18,129.5	127,129.7	7,390.3	313.6	31.0	71.4	22.4	0.0	498.4		606.1
TOTAL		18,204.0	127,702.2	7,871.2	389.4	31.0	73.5	24.2	0.0		518.1	631.3

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000'S) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAIN-r.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
STRATUM 3					40,019.4	3,764.0	10,678.0	3,848.2	4,900.8		32,939.2	
Honolulu	31											
MB		72,694.5	322,870.2	14,841.1	595.5	36.9	148.6	59.6	0.8	841.4		970.6
TOTAL		72,694.5	322,870.2	14,841.1	595.5	36.9	148.6	59.6	0.8		841.4	970.6
Pboenlx	32											
MB		25,002.0	98,084.7	9,445.1	491.3	23.3	76.8	43.2	22.6	657.2		810.5
TOTAL		25,001.0	98,084.7	9,445.1	491.3	23.3	76.8	43.2	22.6		657.2	810.5
Cincinnati	33											
MB		26,894.1	125,204.3	9,677.7	443.2	26.8	135.9	25.3	26.2	657.4		754.3
TOTAL		26,894.7	125,204.3	9,677.7	443.2	26.8	135.9	25.3	26.2		657.4	754.3
Salt Lake	34											
DR		109.2	524.1	671.9	20.7	0.0	1.6	1.3	0.0	23.6		30.8
MB		20,990.4	108,744.8	12,838.2	424.9	5.1	94.4	38.5	13.9	576.8		743.4
TOTAL		21,099.6	109,268.9	13,510.1	445.6	5.1	96.0	39.8	13.9		600.4	774.2
NY-Queens Surface	35											
MB		12,915.2	75,031.0	6,489.4	362.0	49.0	173.0	65.0	0.0	649.0		728.0
TOTAL		12,915.2		6,489.4	362.0	49.0	173.0	65.0	0.0		649.0	728.0
Columbus	36											
MB		17,159.4	82,788.8	7,490.9	399.2	28.4	58.6	44.6	28.8	559.6		672.2
TOTAL		17,159.4	82,788.8	7,490.9	399.2	28.4	58.6	44.6	28.8		559.6	672.2
Detrolt SEMTA	31											
DR		581.3	5,085.9	1,889.3	73.8	24.7	17.7	7.7	0.6	124.5		164.7
MB		8,098.0	71,841.6	7,803.4	258.2	16.6	69.6	34.2	2.2	380.8		505.0
TOTAL		8,679.3	76,927.5	9,692.7	332.0	41.3	87.3	41.9	2.8		505.3	669.7
Kansas City	38											
MB		18,091.7	61,475.5	7,945.4	359.4	13.9	86.1	46.6	27.9	533.9		646.6
TOTAL		18,091.7	61,475.5	7,945.4	359.4	13.9	86.1	46.6	27.9		533.9	646.6
Broward FL	39											
MB		14,413.2	67,589.6	8,973.2	401.6	13.3	91.7	25.4	12.3	544.3		646.6
TOTAL		14,413.2	67,589.6	8,973.2	401.6	13.3	91.7	25.4	12.3		544.3	646.6
SAMTRANS	40											
DR		74.5	572.5	480.9	15.8	0.0	2.1	1.8	0.0	19.7		25.2
MB		18,129.5	127,129.7	7,390.3	313.6	31.0	71.4	22.4	0.0	498.4		606.1
TOTAL		18,204.0	127,702.2	7,871.2	389.4	31.0	73.5	24.2	0.0		518.1	631.3

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000%) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000's) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS BY MODE	SUBTOTAL	TOTAL FTE'S
Montco, MD	51											
DR		131.8	1,005.5	297.5	30.8	0.0	3.0	0.0	1.0	34.8		39.8
MB		12,223.8	42,870.5	5,138.9	299.8	0.0	54.0	2.0	45.3	401.1		450.1
TOTAL		12,355.6	43,876.0	5,436.4	330.6	0.0	57.0	2.0	46.3		435.9	489.9
Long Beach	52											
MB		21,482.5	68,944.4	5,878.5	326.0	9.0	61.0	7.0	0.0	403.0		476.0
TOTAL		21,482.5	68,944.4	5,878.5	326.0	9.0	61.0	7.0	0.0		403.0	476.0
Dayton	53											
DR		21.2	112.4	71.2	5.8	0.0	0.9	0.2	0.5	7.4		12.4
MB		8,984.5	44,923.0	5,118.4	201.1	0.7	36.1	18.5	8.2	264.6		322.3
TB		6,186.3	14493.6	1,609.5	68.9	0.5	14.8	4.9	12.9	102.0		130.1
TOTAL		15,192.0	59,529.0	6,799.1	275.8	1.2	51.8	23.6	21.6		374.0	464.8
Pinellas	54											
DR		112.9	858.3	523.4	25.6	6.7	3.4	7.7	2.0	45.4		54.7
MB		8,624.2	44,760.6	4,881.8	254.3	30.6	30.7	12.4	5.0	333.0		406.9
TOTAL		8,737.1	45,618.9	5,405.2	279.9	37.3	34.1	20.1	7.0		378.4	461.6
Tuscon	55											
DR		165.9	1,310.0	1,354.7	55.4	16.9	0.0	0.0	1.6	73.9		71.3
MB		12,358.7	42,976.1	5519.2	227.0	1.0	43.0	16.0	2.0	289.0		348.0
TOTAL		12,524.6	44,286.1	6,873.9	282.4	17.9	43.0	16.0	3.6		362.9	425.3
Hillsborough	56											
MB		10,474.5	45,581.1	7,007.5	282.6	20.9	35.3	24.0	7.7	370.5		424.2
TOTAL		10,474.5	45,581.1	7,007.5	282.6	20.9	35.3	24.0	7.7		370.5	424.2
Indianapolis	57											
DR		29.2	259.8	263.9	8.8	2.4	2.0	1.0	0.5	14.7		17.8
MB		10,780.2	49,338.7	5,447.6	245.5	18.9	42.8	27.6	13.9	348.7		419.9
TOTAL		10,809.4	49,598.5	5,711.5	254.3	21.3	44.8	28.6	14.4		363.4	437.7
Pierce Co, WA	58											
DR		127.8	1,162.7	581.6	20.0	7.8	3.0	1.0	0.0	31.8		33.8
MB		10,211.8	38,079.9	5 390.5	231.6	6.0	42.0	25.3	13.5	318.4		399.7
TOTAL		10,339.6	39,242.6	5,972.1	251.6	13.8	45.0	26.3	13.5		350.2	433.5
Richmond	59											
MB		24,669.2	55,367.4	4,808.4	276.0	5.0	42.0	19.0	5.0	347.0		406.0
TOTAL		24,669.2	55,367.4	4,808.4	276.0	5.0	42.0	19.0	5.0		347.0	406.0
Jacksonville TA	60											
MB		8,012.9	46,846.7	5,782.2	259.2	14.4	49.4	24.3	5.7	353.0		403.0
TOTAL		8,012.9	46,846.7	5,782.2	259.2	14.4	49.4	24.3	5.7		353.0	403.0

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000'S) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000'S) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
Memphis	61											
DR		108.2	1,482.5	492.2	0.0	0.0	3.5	0.0	0.0	3.5		6.5
MB		14,170.0	58,897.4	6,354.7	249.1	2.0	44.9	24.2	8.1	328.3		394.3
TOTAL		14,278.2	60,379.9	6,846.9	249.1	2.0	48.4	24.2	8.1		331.8	400.8
N San Diego	62											
MB		10,192.7	69,960.7	7,828.0	234.2	4.8	43.3	21.2	10.5	314.0		388.6
TOTAL		10,192.7	69,960.7	7,828.0	234.2	4.8	43.3	21.2	10.5		314.0	388.6
Toledo	63											
MB		7,046.2	29,248.2	5,587.6	258.1	9.0	23.4	20.1	4.5	315.1		347.3
TOTAL		7,046.2	29,248.2	5,587.6	258.1	9.0	23.4	20.1	4.5		315.1	347.3
Syracuse	64											
DR		106.3	646.5	461.6	11.3	3.3	2.0	1.5	0.7	18.8		24.6
MB		14,726.6	31,170.7	3,941.7	182.5	10.3	45.9	13.5	7.2	259.4		315.5
TOTAL		14,832.9	31,817.2	4,403.3	193.8	13.6	47.9	15.0	7.9		278.2	340.1
PATCO	65											
RR		11,025.3	96,730.9	4,095.7	50.0	14.0	49.8	14.0	77.3	205.1		330.6
TOTAL		11,025.3	96,730.9	4,095.7	50.0	14.0	49.8	14.0	77.3		205.1	330.6
Charlotte	66											
DR		57.1	424.0	327.1	16.8	2.0	0.0	0.0	0.0	18.8		23.9
MB		10,982.9	44,575.9	4,193.8	204.0	4.0	37.0	9.0	0.0	254.0		287.0
TOTAL		11,040.0	44,999.9	4,520.9	220.8	6.0	37.0	9.0	0.0		272.8	310.9
Spokane	67											
DR		219.1	1,488.1	856.3	32.6	3.7	2.6	0.9	0.0	39.8		48.2
MB		6426.6	32,352.7	4,594.0	180.7	0.9	34.0	10.4	10.5	236.5		286.2
TOTAL		6,645.7	33,840.8	5,450.3	213.3	4.6	36.6	11.3	10.5		276.3	334.4
Madison	68											
DR		36.0	172.7	162.3	13.0	4.5	1.5	0.0	0.0	19.0		21.5
MB		9,047.9	32,939.6	3,798.1	181.9	10.3	33.6	12.9	5.7	244.4		279.4
TOTAL		9,083.9	33,112.3	3,960.4	194.9	14.8	35.1	12.9	5.7		263.4	300.9
Albuquerque	69											
MB		4,443.7	16,195.8	3,200.2	166.0	9.0	33.0	16.0	6.0	230.0		295.0
TOTAL		4,443.7	16,195.8	3,200.2	166.0	9.0	33.0	16.0	6.0		230.0	295.0
Ft. Worth	70											
DR		85.9	814.1	506.4	16.5	3.0	3.0	1.0	0.0	23.5		24.5
MB		5,013.2	31,693.3	3,606.6	155.0	9.0	25.0	20.0	6.0	215.0		271.5
TOTAL		5,099.1	32,507.4	4,113.0	171.5	12.0	28.0	21.0	6.0		238.5	296.0

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000'S) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000'S) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
Memphis	61											
DR		108.2	1,482.5	492.2	0.0	0.0	3.5	0.0	0.0	3.5		6.5
MB		14,170.0	58,897.4	6,354.7	249.1	2.0	44.9	24.2	8.1	328.3		394.3
TOTAL		14,278.2	60,379.9	6,846.9	249.1	2.0	48.4	24.2	8.1		331.8	400.8
N San Diego	62											
MB		10,192.7	69,960.7	7,828.0	234.2	4.8	43.3	21.2	10.5	314.0		388.6
TOTAL		10,192.7	69,960.7	7,828.0	234.2	4.8	43.3	21.2	10.5		314.0	388.6
Toledo	63											
MB		7,046.2	29,248.2	5,587.6	258.1	9.0	23.4	20.1	4.5	315.1		347.3
TOTAL		7,046.2	29,248.2	5,587.6	258.1	9.0	23.4	20.1	4.5		315.1	347.3
Syracuse	64											
DR		106.3	646.5	461.6	11.3	3.3	2.0	1.5	0.7	18.8		24.6
MB		14,726.6	31,170.7	3,941.7	182.5	10.3	45.9	13.5	7.2	259.4		315.5
TOTAL		14,832.9	31,817.2	4,403.3	193.8	13.6	47.9	15.0	7.9		278.2	340.1
PATCO	65											
RR		11,025.3	96,730.9	4,095.7	50.0	14.0	49.8	14.0	77.3	205.1		330.6
TOTAL		11,025.3	96,730.9	4,095.7	50.0	14.0	49.8	14.0	77.3		205.1	330.6
Charlotte	66											
DR		57.1	424.0	327.1	16.8	2.0	0.0	0.0	0.0	18.8		23.9
MB		10,982.9	44,575.9	4,193.8	204.0	4.0	37.0	9.0	0.0	254.0		287.0
TOTAL		11,040.0	44,999.9	4,520.9	220.8	6.0	37.0	9.0	0.0		272.8	310.9
Spokane	67											
DR		219.1	1,488.1	856.3	32.6	3.7	2.6	0.9	0.0	39.8		48.2
MB		6426.6	32,352.7	4,594.0	180.7	0.9	34.0	10.4	10.5	236.5		286.2
TOTAL		6,645.7	33,840.8	5,450.3	213.3	4.6	36.6	11.3	10.5		276.3	334.4
Madison	68											
DR		36.0	172.7	162.3	13.0	4.5	1.5	0.0	0.0	19.0		21.5
MB		9,047.9	32,939.6	3,798.1	181.9	10.3	33.6	12.9	5.7	244.4		279.4
TOTAL		9,083.9	33,112.3	3,960.4	194.9	14.8	35.1	12.9	5.7		263.4	300.9
Albuquerque	69											
MB		4,443.7	16,195.8	3,200.2	166.0	9.0	33.0	16.0	6.0	230.0		295.0
TOTAL		4,443.7	16,195.8	3,200.2	166.0	9.0	33.0	16.0	6.0		230.0	295.0
Ft. Worth	70											
DR		85.9	814.1	506.4	16.5	3.0	3.0	1.0	0.0	23.5		24.5
MB		5,013.2	31,693.3	3,606.6	155.0	9.0	25.0	20.0	6.0	215.0		271.5
TOTAL		5,099.1	32,507.4	4,113.0	171.5	12.0	28.0	21.0	6.0		238.5	296.0

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000'S) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000'S) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
Eugene	82											
MB		5,731.6	22,224.4	2,986.4	129.0	9.5	16.0	11.5	0.0	166.0		208.0
TOTAL		5,731.6	22,224.4	2,986.4	129.0	9.5	16.0	11.5	0.0		166.0	208.0
San Bernadino	83											
MB		3,990.1	5,678.2	1,453.1	123.5	5.0	27.0	7.0	5.0	167.5		207.5
TOTAL		3,990.1	5,678.2	1,453.1	123.5	5.0	27.0	7.0	5.0		167.5	207.5
Fresno	84											
DR		46.0	317.7	236.7	9.7	1.8	1.9	0.0	0.0	13.4		13.4
MB		8,720.0	32,411.1	3,041.4	107.2	2.7	25.4	12.8	4.7	152.8		183.1
TOTAL		8,766.0	32,728.8	3,278.1	116.9	4.5	27.3	12.8	4.7		166.2	196.5
Wilmington	85											
MB		4,632.0	17,480.1	2,265.8	119.6	6.1	20.0	7.0	4.6	157.3		182.0
TOTAL		4,632.0	17,480.1	2,265.8	119.6	6.1	20.0	7.0	4.6		157.3	182.0
Hampton, VA	86											
DR		31.7	265.1	160.4	11.2	1.6	0.3	0.4	0.0	13.5		13.5
MB		4,688.3	22,658.1	2,208.7	95.1	10.1	14.8	8.3	4.5	132.8		168.4
TOTAL		4,720.0	22,923.2	2,369.1	106.3	11.7	15.1	8.7	4.5		146.3	181.9
New Bedford	87											
DR		NR	NR	NR	9.0	1.0	1.5	0.0	1.5	13.0		14.5
MB		5,436.3	13,234.4	1,970.0	112.0	7.0	13.5	7.0	11.5	151.0		158.5
TOTAL		5,436.3	13,234.4	1,970.0	121.0	8.0	15.0	7.0	13.0		164.0	173.0
Reno	88											
MB		6,138.6	20,195.9	2,691.9	111.2	4.1	15.1	5.1	2.0	137.5		165.7
TOTAL		6,138.6	20,195.9	2,691.9	111.2	4.1	15.1	5.1	2.0		137.5	165.7
Worcester, MA	89											
DR		142.7	549.4	310.4	18.5	0.8	2.2	0.3	0.3	22.1		28.0
MB		5,680.3	12,556.4	2,035.8	101.4	0.8	16.8	2.6	2.0	123.6		144.0
TOTAL		5,823.0	13,105.8	2,346.2	119.9	1.6	19.0	2.9	2.3		145.7	172.0
N. Kentucky	90											
DR		26.9	252.7	164.8	4.8	0.8	0.5	0.3	0.1	6.5		7.0
MB		4,116.2	17,162.6	2,374.9	92.2	0.8	17.5	20.8	0.9	132.2		151.0
TOTAL		4,143.1	17,415.3	2,539.7	97.0	1.6	18.0	21.1	1.0		138.7	158.0
Tulsa TA	91											
DR		41.3	227.4	35.3	1.8	0.1	0.5	0.2	0.0	2.6		3.2
MB		2,943.4	14,587.5	2,559.9	82.2	5.9	26.5	8.8	0.0	123.4		150.3
TOTAL		2,984.7	14,814.9	2,595.2	84.0	6.0	27.0	9.0	0.0		126.0	153.5

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	(000'S) TOTAL RIDERSHIP BY MODE	(000's) PASSENGER MILES	(000'S) REVENUE MILES	SENSITIVE SAFETY EMPLOYEES BY MODE: OPERATORS	SUPPORT	VEHICLE MAINT.	MAINT. SUPPORT	NON-VEHICLE MAINTENANCE	SAFETY-SENS. BY MODE	SUBTOTAL	TOTAL FTE'S
Eugene	82											
MB		5,731.6	22,224.4	2,986.4	129.0	9.5	16.0	11.5	0.0	166.0		208.0
TOTAL		5,731.6	22,224.4	2,986.4	129.0	9.5	16.0	11.5	0.0		166.0	208.0
San Bernadino	83											
MB		3,990.1	5,678.2	1,453.1	123.5	5.0	27.0	7.0	5.0	167.5		207.5
TOTAL		3,990.1	5,678.2	1,453.1	123.5	5.0	27.0	7.0	5.0		167.5	207.5
Fresno	84											
DR		46.0	317.7	236.7	9.7	1.8	1.9	0.0	0.0	13.4		13.4
MB		8,720.0	32,411.1	3,041.4	107.2	2.7	25.4	12.8	4.7	152.8		183.1
TOTAL		8,766.0	32,728.8	3,278.1	116.9	4.5	27.3	12.8	4.7		166.2	196.5
Wilmington	85											
MB		4,632.0	17,480.1	2,265.8	119.6	6.1	20.0	7.0	4.6	157.3		182.0
TOTAL		4,632.0	17,480.1	2,265.8	119.6	6.1	20.0	7.0	4.6		157.3	182.0
Hampton, VA	86											
DR		31.7	265.1	160.4	11.2	1.6	0.3	0.4	0.0	13.5		13.5
MB		4,688.3	22,658.1	2,208.7	95.1	10.1	14.8	8.3	4.5	132.8		168.4
TOTAL		4,720.0	22,923.2	2,369.1	106.3	11.7	15.1	8.7	4.5		146.3	181.9
New Bedford	87											
DR		NR	NR	NR	9.0	1.0	1.5	0.0	1.5	13.0		14.5
MB		5,436.3	13,234.4	1,970.0	112.0	7.0	13.5	7.0	11.5	151.0		158.5
TOTAL		5,436.3	13,234.4	1,970.0	121.0	8.0	15.0	7.0	13.0		164.0	173.0
Reno	88											
MB		6,138.6	20,195.9	2,691.9	111.2	4.1	15.1	5.1	2.0	137.5		165.7
TOTAL		6,138.6	20,195.9	2,691.9	111.2	4.1	15.1	5.1	2.0		137.5	165.7
Worcester, MA	89											
DR		142.7	549.4	310.4	18.5	0.8	2.2	0.3	0.3	22.1		28.0
MB		5,680.3	12,556.4	2,035.8	101.4	0.8	16.8	2.6	2.0	123.6		144.0
TOTAL		5,823.0	13,105.8	2,346.2	119.9	1.6	19.0	2.9	2.3		145.7	172.0
N. Kentucky	90											
DR		26.9	252.7	164.8	4.8	0.8	0.5	0.3	0.1	6.5		7.0
MB		4,116.2	17,162.6	2,374.9	92.2	0.8	17.5	20.8	0.9	132.2		151.0
TOTAL		4,143.1	17,415.3	2,539.7	97.0	1.6	18.0	21.1	1.0		138.7	158.0
Tulsa TA	91											
DR		41.3	227.4	35.3	1.8	0.1	0.5	0.2	0.0	2.6		3.2
MB		2,943.4	14,587.5	2,559.9	82.2	5.9	26.5	8.8	0.0	123.4		150.3
TOTAL		2,984.7	14,814.9	2,595.2	84.0	6.0	27.0	9.0	0.0		126.0	153.5

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	VON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Oakland	17												
MB		891	245	0	1,136	5	0	0	5	285	24	0	309
TOTAL		891	245	0	1,136	5	0	0	5	285	24	0	309
Denver	18												
MB		798	207	78	1,083	1	0	0	1	106	324	180	610
TOTAL		798	207	78	1,083	1	0	0	1	106	324	180	610
Detroit DOT	19												
MB		320	87	0	407	1	0	0	1	72	85	0	157
TOTAL		320	87	0	407	1	0	0	1	72	85	0	157
BART	20												
RR		0	261	656	917	0	0	0	0	0	261	656	917
TOTAL		0	261	656	917	0	0	0	0	0	261	656	917
DART	21												
MB		802	205	0	1,007	1	2	0	3	656	281	0	937
TOTAL		802	205	0	1,007	1	2	0	3	656	281	0	937
St.Louis	22												
DR		24	5	0	29	0	0	0	0	1	2	0	3
MB		422	293	0	715	0	1	0	1	236	278	0	514
TOTAL		446	298	0	744	0	1	0	1	237	280	0	517
Santa Clara	23												
MB		585	134	0	719	0	2	0	2	96	132	0	228
SC		35	9	0	44	1	0	0	1	19	9	0	28
TOTAL		620	143	0	763	1	2	0	3	115	141	0	256
Portland	24												
MB		523	306	36	865	2	0	0	2	326	466	39	831
SC		94	72	38	204	0	0	1	1	84	74	52	210
TOTAL		617	378	74	1,069	2	0	1	3	410	540	91	1,041
Milwaukee	25												
MB		642	365	239	1,246	1	0	0	1	398	567	239	1,204
TOTAL		642	365	239	1,246	1	0	0	1	398	567	239	1,204
Orange Co	26												
MB		517	273	2	792	3	1	0	4	107	400	16	523
VP		1	0	0	1	0	0	0	0	0	0	0	0
TOTAL		518	273	2	793	3	1	0	4	107	400	16	523
New Orleans	27												
MB		421	303	9	733	1	0	0	1	586	317	9	912
SC		106	58	0	164	0	0	0	0	33	36	0	69
TOTAL		527	361	9	897	1	0	0	1	619	353	9	981

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RAN K	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
PATH	28												
RR		0	36	31	67	0	1	0	1	0	35	31	66
TOTAL	999	0	36	31	67	0	1	0	1	0	35	31	66
San Antonio	29												
DR													
MB		402	287	1	690	1	0	0	1	62	234	0	296
TOTAL	999	402	287	1	690	1	0	0	1	62	234	0	296
Buffalo	30												
MB		491	254	2	747	0	0	0	0	61	254	0	315
SC		5	67	76	148	0	0	0	0	1	61	68	130
TOTAL	999	496	321	78	895	0	0	0	0	62	315	68	445
SUBTOTAL		15,412	8,092	1,705	25,209	341	91	21	45	8,022	7,376	7,814	77,152

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RAN K	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
PATH	28												
RR		0	36	31	67	0	1	0	1	0	35	31	66
TOTAL	999	0	36	31	67	0	1	0	1	0	35	31	66
San Antonio	29												
DR													
MB		402	287	1	690	1	0	0	1	62	234	0	296
TOTAL	999	402	287	1	690	1	0	0	1	62	234	0	296
Buffalo	30												
MB		491	254	2	747	0	0	0	0	61	254	0	315
SC		5	67	76	148	0	0	0	0	1	61	68	130
TOTAL	999	496	321	78	895	0	0	0	0	62	315	68	445
SUBTOTAL		15,412	8,092	1,705	25,209	341	91	21	45	8,022	7,376	7,814	77,152

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL	STATION	TOTAL
Sacramento	41												
MB		63	214	0	277	0	0	0	0	33	226	0	259
SC		30	53	0	83	0	0	0	0	9	51	0	60
TOTAL		93	267	0	360	0	0	0	0	42	277	0	319
Austin, TX	42												
DR		28	10	0	38	0	0	0	0	9	10	0	19
MB		258	155	0	413	0	0	0	0	53	155	0	208
TOTAL		286	165	0	451	0	0	0	0	62	165	0	227
Louisville	43												
DR		3	10	0	13	0	0	0	0	0	9	0	9
MB		266	287	56	609	0	0	0	0	25	200	29	254
TOTAL		269	297	56	622	0	0	0	0	25	209	29	263
PACE	44												
MB		477	33	12	522	0	0	0	0	175	31	0	206
TOTAL		477	33	12	522	0	0	0	0	175	31	0	206
RI Transit	45												
MB		344	217	124	685	0	0	0	0	250	113	28	391
TOTAL		344	217	124	685	0	0	0	0	250	113	28	391
Norfolk	46												
DR		48	34	0	82	0	0	0	0	13	28	0	41
MB		264	210	4	478	2	0	0	2	51	144	0	195
TOTAL		312	244	4	560	2	0	0	2	64	172	0	236
Rochester	47												
DR		22	22	4	48	0	0	0	0	0	11	1	12
MB		189	57	42	288	0	0	0	0	15	57	40	112
TOTAL		211	79	46	336	0	0	0	0	15	68	41	124
Connecticut	48												
MB		277	144	0	421	40	100	0	140	40	100	0	140
TOTAL		277	144	0	421	40	100	0	140	40	100	0	140
Albany	49												
DR		13	6	0	19	0	0	0	0	0	6	0	6
MB		182	97	0	279	1	0	0	1	38	94	0	132
TOTAL		195	103	0	298	1	0	0	1	38	100	0	138
Golden Gate TD	50												
MB		224	55	1	280	1	0	0	1	16	54	1	71
TOTAL		224	55	1	280	1	0	0	1	16	54	1	71

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL	STATION	TOTAL
Sacramento	41												
MB		63	214	0	277	0	0	0	0	33	226	0	259
SC		30	53	0	83	0	0	0	0	9	51	0	60
TOTAL		93	267	0	360	0	0	0	0	42	277	0	319
Austin, TX	42												
DR		28	10	0	38	0	0	0	0	9	10	0	19
MB		258	155	0	413	0	0	0	0	53	155	0	208
TOTAL		286	165	0	451	0	0	0	0	62	165	0	227
Louisville	43												
DR		3	10	0	13	0	0	0	0	0	9	0	9
MB		266	287	56	609	0	0	0	0	25	200	29	254
TOTAL		269	297	56	622	0	0	0	0	25	209	29	263
PACE	44												
MB		477	33	12	522	0	0	0	0	175	31	0	206
TOTAL		477	33	12	522	0	0	0	0	175	31	0	206
RI Transit	45												
MB		344	217	124	685	0	0	0	0	250	113	28	391
TOTAL		344	217	124	685	0	0	0	0	250	113	28	391
Norfolk	46												
DR		48	34	0	82	0	0	0	0	13	28	0	41
MB		264	210	4	478	2	0	0	2	51	144	0	195
TOTAL		312	244	4	560	2	0	0	2	64	172	0	236
Rochester	47												
DR		22	22	4	48	0	0	0	0	0	11	1	12
MB		189	57	42	288	0	0	0	0	15	57	40	112
TOTAL		211	79	46	336	0	0	0	0	15	68	41	124
Connecticut	48												
MB		277	144	0	421	40	100	0	140	40	100	0	140
TOTAL		277	144	0	421	40	100	0	140	40	100	0	140
Albany	49												
DR		13	6	0	19	0	0	0	0	0	6	0	6
MB		182	97	0	279	1	0	0	1	38	94	0	132
TOTAL		195	103	0	298	1	0	0	1	38	100	0	138
Golden Gate TD	50												
MB		224	55	1	280	1	0	0	1	16	54	1	71
TOTAL		224	55	1	280	1	0	0	1	16	54	1	71

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Memphis	61												
DR		24	0	0	24	0	0	0	0	0	0	0	0
MB		131	6	0	137	0	0	0	0	76	6	0	82
TOTAL		155	6	0	161	0	0	0	0	76	6	0	82
San Diego	62												
MB		296	63	0	359	0	0	0	0	5	63	0	68
TOTAL	#9	296	63	0	359	0	0	0	0	5	63	0	68
Toledo	63												
MB		229	68	2	299	0	0	0	0	33	68	2	103
TOTAL	#2	229	68	2	299	0	0	0	0	33	68	2	103
Syracuse	64												
DR		5	0	0	5	0	0	0	0	0	0	0	0
MB		153	52	0	205	1	0	0	1	15	52	0	67
TOTAL	#3	158	52	0	210	1	0	0	1	15	52	0	67
PATCO	65												
RR		0	14	21	35	0	0		0	0	14	21	35
TOTAL	#8	0	14	21	35	0	0	0	0	0	14	21	35
Charlotte	66												
DR		7	8	0	15	0	0	0	0	2	8	0	10
MB		148	12	4	164	0	0	0	0	196	1	0	197
TOTAL	#5	155	20	4	179	0	0	0	0	198	9	0	207
Spokane	67												
DR		56	0	1	57	0	0	0	0	4	0	0	4
MB		103	20	4	127	0	0	0	0	8	20	0	28
TOTAL	#4	159	20	5	184	0	0	0	0	12	20	0	32
Madison	68												
DR		13	2	0	15	0	0	0	0	1	2	0	3
MB		127	22	14	163	0	0	0	0	2	21	0	23
TOTAL	#6	140	24	14	178	0	0	0	0	3	23	0	26
Albuquerque	69												
MB		152	22	0	174	0	0	0	0	57	22	0	79
TOTAL	#7	152	22	0	174	0	0	0	0	57	22	0	79
Ft. Worth	70												
DR		15	0	0	15	0	0	0	0	3	0	0	3
MB		102	17	0	119	0	0	0	0	11	17	0	28
TOTAL	#1	117	17	0	134	0	0	0	0	14	17	0	31

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Memphis	61												
DR		24	0	0	24	0	0	0	0	0	0	0	0
MB		131	6	0	137	0	0	0	0	76	6	0	82
TOTAL		155	6	0	161	0	0	0	0	76	6	0	82
San Diego	62												
MB		296	63	0	359	0	0	0	0	5	63	0	68
TOTAL	#9	296	63	0	359	0	0	0	0	5	63	0	68
Toledo	63												
MB		229	68	2	299	0	0	0	0	33	68	2	103
TOTAL	8:	229	68	2	299	0	0	0	0	33	68	2	103
Syracuse	64												
DR		5	0	0	5	0	0	0	0	0	0	0	0
MB		153	52	0	205	1	0	0	1	15	52	0	67
TOTAL	3:	158	52	0	210	1	0	0	1	15	52	0	67
PATCO	65												
RR		0	14	3		0			0	0	14	21	35
TOTAL			14	21	35	0	0	0	0	0	14	21	35
Charlotte	66												
DR		7	8	0	15	0	0	0	0	2	8	0	10
MB		148	12	4	164	0	0	0	0	1%	1	0	197
TOTAL		155	20	4	179	0	0	0	0	198	9	0	207
Spokane	67												
DR		56	0	1	57	0	0	0	0	4	0	0	4
MB		103	20	4	127	0	0	0	0	8	20	0	28
TOTAL		159	20	5	184	0	0	0	0	12	20	0	322
Madison	68												
DR		13	2	0	15	0	0	0	0	1	2	0	3
MB		127	22	14	163	0	0	0	0	2	21	0	23
TOTAL		140	24	14	178	0	0	0	0	3	23	0	26
Albuquerque	69												
MB		152	22	0	174	0	0	0	0	57	22	0	79
TOTAL		152	22	0	174	0	0	0	0	57	22	0	79
Ft. Worth	70												
DR		15	0	0	15	0	0	0	0	3	0	0	3
MB		102	17	0	119	0	0	0	0	11	17	0	28
TOTAL		117	17	0	134	0	0	0	0	14	17	0	31

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL
Memphis	61												
DR		24	0	0	24	0	0	0	0	0	0	0	0
MB		131	6	0	137	0	0	0	0	76	6	0	82
TOTAL		155	6	0	161	0	0	0	0	76	6	0	82
San Diego	62												
MB		296	63	0	359	0	0	0	0	5	63	0	68
TOTAL	#9	296	63	0	359	0	0	0	0	5	63	0	68
Toledo	63												
MB		229	68	2	299	0	0	0	0	33	68	2	103
TOTAL	8:	229	68	2	299	0	0	0	0	33	68	2	103
Syracuse	64												
DR		5	0	0	5	0	0	0	0	0	0	0	0
MB		153	52	0	205	1	0	0	1	15	52	0	67
TOTAL	3:	158	52	0	210	1	0	0	1	15	52	0	67
PATCO	65												
RR		0	14	3		0			0	0	14	21	35
TOTAL			14	21	35	0	0	0	0	0	14	21	35
Charlotte	66												
DR		7	8	0	15	0	0	0	0	2	8	0	10
MB		148	12	4	164	0	0	0	0	1%	1	0	197
TOTAL		155	20	4	179	0	0	0	0	198	9	0	207
Spokane	67												
DR		56	0	1	57	0	0	0	0	4	0	0	4
MB		103	20	4	127	0	0	0	0	8	20	0	28
TOTAL		159	20	5	184	0	0	0	0	12	20	0	322
Madison	68												
DR		13	2	0	15	0	0	0	0	1	2	0	3
MB		127	22	14	163	0	0	0	0	2	21	0	23
TOTAL		140	24	14	178	0	0	0	0	3	23	0	26
Albuquerque	69												
MB		152	22	0	174	0	0	0	0	57	22	0	79
TOTAL		152	22	0	174	0	0	0	0	57	22	0	79
Ft. Worth	70												
DR		15	0	0	15	0	0	0	0	3	0	0	3
MB		102	17	0	119	0	0	0	0	11	17	0	28
TOTAL		117	17	0	134	0	0	0	0	14	17	0	31

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL	STATION	TOTAL
San Diego Troll.	92												
SC		6	0	0	6	0	0	0	0	6	0	0	6
TOTAL		6	0	0	6	0	0	0	0	6	0	0	6
Duluth TA	93												
MB		29	12	0	41	0	0	0	0	0	12	0	12
TOTAL		29	12	0	41	0	0	0	0	0	12	0	12
COTPA	94												
DR		4	3	0	7	0	0	0	0	0	3	0	3
MB		56	35	0	91	1	0	0	1	19	31	0	50
TOTAL		60	38	0	98	1	0	0	1	19	34	0	53
Savannah	95												
MB		0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		0	0	0	0	0	0	0	0	0	0	0	0
Santa Barbara	96												
MB		58	25	20	103	0	0	0	0	11	25	20	56
TOTAL		58	25	20	103	0	0	0	0	11	25	20	56
Lehigh/North.	97												
MB		66	15	0	81	0	0	0	0	2	11	0	13
TOTAL		66	15	0	81	0	0	0	0	2	11	0	13
Grand Raplds	98												
MB		7c	32	0	102	0	0	0	0	17	33	0	50
TOTAL		70	32	0	102	0	0	0	0	17	33	0	50
Harrisburg	99												
MB		15	29	0	44	0	0	0	0	3	11	0	14
TOTAL		15	29	0	44	0	0	0	0	3	11	0	14
Charleston	100												
MB		41	12	0	53	0	0	0	0	52	8	0	60
TOTAL		41	12	0	53	0	0	0	0	52	8	0	60
SUBTOTAL.		*13,834*	*5.608*	*673*	*20,115*	*60*	*102*	*2*	*164*	*3,353*	*5,066*	*368*	*8,787*
TOTAL		*59,401*	*22,836*	*7,525*	*89,762*	*156*	*119*	*10*	*285*	*23,010*	*23,899*	*9,188*	*56,097*

SUBSTANCE ABUSE STUDY - SYSTEM AND EMPLOYEE DATABASE

SYSTEM	RANK	ACCIDENTS				FATALITIES				INJURIES			
		COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL.	STATION	TOTAL	COLLISION	NON-COLL	STATION	TOTAL
San Diego Troll.	92												
SC		6	0	0	6	0	0	0	0	6	0	0	6
TOTAL		6	0	0	6	0	0	0	0	6	0	0	6
Duluth TA	93												
MB		29	12	0	41	0	0	0	0	0	12	0	12
TOTAL		29	12	0	41	0	0	0	0	0	12	0	12
COTPA	94												
DR		4	3	0	7	0	0	0	0	0	3	0	3
MB		56	35	0	91	1	0	0	1	19	31	0	50
TOTAL		60	38	0	98	1	0	0	1	19	34	0	53
Savannah	95												
MB		0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		0	0	0	0	0	0	0	0	0	0	0	0
Santa Barbara	96												
MB		58	25	20	103	0	0	0	0	11	25	20	56
TOTAL		58	25	20	103	0	0	0	0	11	25	20	56
Lehigh/North.	97												
MB		66	15	0	81	0	0	0	0	2	11	0	13
TOTAL		66	15	0	81	0	0	0	0	2	11	0	13
Grand Raplds	98												
MB		7c	32	0	102	0	0	0	0	17	33	0	50
TOTAL		70	32	0	102	0	0	0	0	17	33	0	50
Harrisburg	99												
MB		15	29	0	44	0	0	0	0	3	11	0	14
TOTAL		15	29	0	44	0	0	0	0	3	11	0	14
Charleston	100												
MB		41	12	0	53	0	0	0	0	52	8	0	60
TOTAL		41	12	0	53	0	0	0	0	52	8	0	60
SUBTOTAL.		*13,834*	*5.608*	*673*	*20,115*	*60*	*102*	*2*	*164*	*3,353*	*5,066*	*368*	*8,787*
TOTAL		*59,401*	*22,836*	*7,525*	*89,762*	*156*	*119*	*10*	*285*	*23,010*	*23,899*	*9,188*	*56,097*

Appendix D

Details Of The Employee Survey Sampling Plan

Details Of The Employee Survey Sampling Plan

The sample of systems was accomplished by stratum. Four systems were selected from the first stratum. A systematic random sample was selected of 50% or four of the eight largest systems representing this first stratum. These eight systems account for over half of all daily transit ridership in the U.S. A systematic random sample was selected of 23% or five of the second stratum of 22 systems, which accounts for about another fifth of all ridership. The third stratum of the next 70 systems had a systematic random sample of 7% or five systems. In total, 14 transit systems were selected as the first stage sample for the transit employee survey.

The second stage of the transit employee sampling process was to specify the number of employees to be sampled from each cooperating transit system. In the largest system stratum, a sample objective was established as 500 sensitive safety employees. In the second stratum of large systems, the sample objective was set as 250 sensitive safety employees. The third stratum had an objective for 75 to 100 sensitive safety employees for the survey.

The general approach to weighting data from surveys is to base the assignment of weights on the probability of selection. This is because of the fundamental result in sampling theory that, if all sampling units respond, then weighting by the inverse of the probability of selection allows for the generation of unbiased estimates of universe totals. Selection probabilities are determined by the way the sample is selected. For example, if a single-stage random sample of 100 units is selected from a universe of 1000 units, and all 100 units respond to the survey, the selection probability for each selected unit would be 0.1 (100/1000). The appropriate weight to assign to each respondent would be 10. Unbiased estimates of totals would be generated by weighting survey responses by 10.

However, in this survey, as in most surveys, there was some nonresponse -- transit systems and employees selected for the sample that did not agree to participate in the survey. When there is nonresponse, the sample weighting must reflect it. This is often done, as it was in this survey, by assuming that the cooperators in each sampling stratum are equivalent to a random sample from the stratum. In addition, the variances of survey estimates can usually be reduced if there are known universe totals, or good estimates of universe totals, to which survey estimates can be aligned. This alignment is done by multiplying the weights of the respondents in different cells by the appropriate constant that adjusts the sample weight sum to the “known” cell total.

Details Of The Employee Survey Sampling Plan

The sample of systems was accomplished by stratum. Four systems were selected from the first stratum. A systematic random sample was selected of 50% or four of the eight largest systems representing this first stratum. These eight systems account for over half of all daily transit ridership in the U.S. A systematic random sample was selected of 23% or five of the second stratum of 22 systems, which accounts for about another fifth of all ridership. The third stratum of the next 70 systems had a systematic random sample of 7% or five systems. In total, 14 transit systems were selected as the first stage sample for the transit employee survey.

The second stage of the transit employee sampling process was to specify the number of employees to be sampled from each cooperating transit system. In the largest system stratum, a sample objective was established as 500 sensitive safety employees. In the second stratum of large systems, the sample objective was set as 250 sensitive safety employees. The third stratum had an objective for 75 to 100 sensitive safety employees for the survey.

The general approach to weighting data from surveys is to base the assignment of weights on the probability of selection. This is because of the fundamental result in sampling theory that, if all sampling units respond, then weighting by the inverse of the probability of selection allows for the generation of unbiased estimates of universe totals. Selection probabilities are determined by the way the sample is selected. For example, if a single-stage random sample of 100 units is selected from a universe of 1000 units, and all 100 units respond to the survey, the selection probability for each selected unit would be 0.1 (100/1000). The appropriate weight to assign to each respondent would be 10. Unbiased estimates of totals would be generated by weighting survey responses by 10.

However, in this survey, as in most surveys, there was some nonresponse -- transit systems and employees selected for the sample that did not agree to participate in the survey. When there is nonresponse, the sample weighting must reflect it. This is often done, as it was in this survey, by assuming that the cooperators in each sampling stratum are equivalent to a random sample from the stratum. In addition, the variances of survey estimates can usually be reduced if there are known universe totals, or good estimates of universe totals, to which survey estimates can be aligned. This alignment is done by multiplying the weights of the respondents in different cells by the appropriate constant that adjusts the sample weight sum to the “known” cell total.

For example, since we had two cooperating systems out of 8 in stratum one, W(SYS) was taken to be 4 (i.e., the inverse of 2/8). Because the New York City Transit Authority was a certainty selection, it was in a stratum by itself. However, since this system was unable to participate, a nonresponse adjustment had to be made. The best that could be done was to put it back into the largest stratum for weighting purposes.

For the second weight factor, W(EMP), the selection probability of an employee from a participating system is the number of employees selected for the sample divided by the number of sensitive safety employees in the system. To account for nonresponse, we used the number of respondents (i.e., interviews) in the system divided by the number of sensitive safety employees in the system for the adjusted selection probability. For example, for hypothetical System A, there were 100 completed interviews out of a total of 1,000 sensitive safety employees. Therefore, W(EMP) for System A transit employees was 10.00 (i.e., the inverse of 100/1,000) to account for every sensitive safety employee. Thus, the basic weight for each interviewed employee in System A was about 40 (i.e., 4 * 10.00). For the larger transit systems, employees were sampled only from a random sample of some of the system facilities. However, since the total number of sensitive safety employees available at these facilities was continuously changing (due to various work schedule and absenteeism reasons) and not easy to determine on a daily basis, this additional stage of selection was not incorporated into the weights.

Since the total number of sensitive safety employees in each stratum was known, by several types of employees, we were able to improve the weights by adjusting them to align with these counts. The employee category types used were operators, vehicle maintenance, nonvehicle maintenance, and operational/maintenance support. For each of these employee types by stratum (cell), the basic weights of the respondents were added together. The known universe total for the cell was divided by the weight sum to create the appropriate weight factor to apply to the basic weights of all respondents in the cell. The final weight of each respondent was the product of his/her basic weight and the cell adjustment factor based on the known total.

For example, for operators in stratum one, the basic weights added to 14,834. The total number of operators for the stratum is about 34,000. Therefore, the cell adjustment factor is about 2.3. Thus, the final weight assigned to each operator interviewed from the System A transit system is about 92 (i.e., 40 * 2.3). This process was continued for each transit system and employee category to obtain final weights for each completed survey response.

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